

```

1   AAAATAACGA AAGAAAGGCA GAGAGGAAGT AGCGAGAGAA GAGAGAAAAT
51  GAAGTCGGCG CTGGGGGAGC CTGCAGGAGG GTGGCCAACA GTGGAGGAAG
101 GTGGATTTGG CTTCTTTTCC GCACCCCGGG CGTGAAAGCC CTCTCCAACG
151 CGACCCAGAG AAATAAGTGG GTCTCGCCTG GGCAGAAAAG GAAAAGAATC
201 CAGGCGAGAG CGCGTCGCTC CTCTGTCACT GCTGCCCCCG AGGAACTCCG
251 GCTGCTTCTC ATCCCGGCCG CCTCGCGGGG CCGGACGCAG TGCCCGAGGC
301 GCCCTGCAGA TGGGGCGGGC AGGGAACGGG CGCTCCAGCT GCGGGTGACA
351 GGCGCCGGCC CGCCCGCCTG CCTGCTCAGC GCAGTGACCG GCGGGCAGA
401 GGATGCCAGG CGGAGGGACC TGGGAGCGGG ATCTGAGACT GCCGAGGCG
451 CGCTACGCTC CAACTTGCAT GGCCTAGAGA CCGCTCCAGC TCCTGGGACC
501 GCTTCAACGA GTGGAGTGAA GCTGCGCGCG GGACCTGGAG GCGGAGACCT
551 CGGACGCGG CTGCAGAGGG GCGAGCCGGG CGCAGGAGGG GGCGCGCTTT
601 CTCCCTGCGG GTCTCAGTAA TGAGGAGACT GAGTTTGTGG TGCTGCTGA
651 GCAGGGTCTG TCTGCTGTTG CCGCCGCCCT GCGCACTGGT GCTGGCCGGG
701 GTGCCAGCTC CCTCCTCGCA CCCGCAGCCC TGCCAGATCC TCAAGCGCAT
751 CGGGACGCGG GTGAGGGTGG GCGCGGTGCA CTTGAGCCCC TGACCACCG
801 CCCCCGCGC GGCCAGCCGC GCTCCGGACG ACAGCCGAGC AGGAGCCCAG
851 AGGGATGAGC CGGAGCCAGG GACTAGGCGG TCCCCGCGC CCTCGCCGGG
901 CGCACGCTGG TTTGGGAGCA CCCTGCATGG CCGGGGGCCG CCGGGCTCCC
951 GTAAGCCCGG GGAGGGCGCC AGGGCGGAGG CCCTGTGGCC ACGGGACGCC
1001 CTCCTATTGG CCGTGGACAA CCTGAACCGC GTGGAAGGGC TGCTACCCTA
1051 CAACCTGTCT TTGGAAGTAG TGATGGCCAT CGAGGCAGGC CTGGGCGATC
1101 TGCCACTTTT GCCCTTCTCC TCCCCTAGTT CGCCATGGAG CAGTGACCCT
1151 TTCTCCTTCC TGCAAAGTGT GTGCCATACC GTGGTGGTGC AAGGGGTGTC
1201 GCGCTGTCTC GCCTTCCCCC AGAGCCAGGG CGAAATGATG GAGCTCGACT
1251 TGGTCAGCTT AGTCTGCAC ATTCCAGTGA TCAGCATCGT GCGCCACGAG
1301 TTTCCGCGGG AGAGTCAGAA TCCCCTTCAC CTACAACCTGA GTTTAGAAAA
1351 TTCATTAAGT TCTGATGCTG ATGTCACTGT CTCAATCCTG ACCATGAACA
1401 ACTGGTACAA TTTTAGCTTG TTGCTGTGCC AGGAAGACTG GAACATCACC
1451 GACTTCCTCC TCCTTACCCA GAATAATTCC AAGTTCCACC TTGGTTCTAT
1501 CATCAACATC ACCGCTAACC TCCCCTCCAC CCAGGACCTC TTGAGCTTCC
1551 TACAGATCCA CTTGAGAGT ATTAAGAACA GCACACCCAC AGTGGTGATG
1601 TTTGCTGCGC ACATGGAAAG TATCCGGCGG ATTTTCGAAA TTACAACCCA
1651 GTTTGGGGTC ATGCCCCCTG AACTTCGTTG GGTGCTGGGA GATTCCCAGA
1701 ATATGGAGGA ACTGAGGACA GAGGGTCTGC CCTAGGACTC CATGCTCAT
1751 GGAAAAACAA CACAGTCTGT CTTTGAGCAC TACGTACAAG ATGCTATGGA
1801 GCTGGTCGCA AGAGCTGTAG CCACAGCCAC CATGATCCAA CCAGAACTTG
1851 CTCTCATTCC CAGCAGCATG AACTGCATGG AGGTGGAAC TACAAATCTC
1901 ACTTCAGGAC AATATTATC AAGGTTTCTA GCCAATACCA CTTTCAGAGG
1951 CCTCAGTGGT TCCATCAGAG TAAAAGGTTT CACCATCGTC AGCTCAGAAA
2001 ACAACTTTTT CATCTGGAAT CTTCAACATG ACCCATAGGG AAAGCCAATG
2051 TGGACCCGCT TGGGCAGCTG GCAGGGGAGA AAGATTGTCA TGGACTATGG
2101 AATATGGCCA GAGCAGGCCC AGAGACACAA AACCCACTTC CAACATCCAA
2151 GTAAGCTACA CTTGAGAGTG GTTACCCTGA TTGAGCATCC TTTTGTCTTC
2201 ACAAGGGAGG TAGATGATGA AGGCTGTGTC CCTGCTGGCC AACTCTGTCT
2251 AGACCCCATG ACTAATGACT CTTCCACACT GGACAGCCTT TTAGCAGCC
2301 TCCATAGCAG TAATGATACA GTGCCCATTA AATTCAAGAA GTGCTGCTAT
2351 GGATATTGCA TTGATCTGCT GGAAAAGATA GCAGAAGACA TGAACTTTGA
2401 CTTGACCTC TATATTGTAG GGGATGGAAA GTATGGAGCC TGGAAAAATG
2451 GGCAGTGGAC TGGGCTAGTG GGTGATCTCC TGAGAGGGAC TGCCCATATG
2501 GCAGTCACTT CCTTTAGCAT CAATACTGCA CGGAGCCAGG TGATAGATTT
2551 CACCAGCCCT TTCTTCTCCA CCAGCTTGGG CATCTTAGTG AGGACCCGAG
2601 ATACAGCAGC TCCCATTGGA GCCTTCATGT GGCCACTCCA CTGGACAATG
2651 TGGCTGGGGA TTTTGTGGC TCTGCACATC ACTGCCGTCT TCCTCACTCT
2701 GTATGAATGG AAGAGTCCAT TTGGTTTGAC TCCAAGGGG CGAAATAGAA
2751 GTAAAGTCTT CTCCTTTTCT TCAGCCTTGA ACATCTGTTA TGCCCTCTTG
2801 TTTGGCAGAA CAGTGGCCAT CAAACCTCCA AAATGTTGGA CTGGAAGGTT
2851 TCTAATGAAC CTTTGGGCCA TTTTCTGTAT GTTTTGCTT TCCACATACA
2901 CGGCAAACTT GGCTGCTGTC ATGGTAGGTG AGAAGATCTA TGAAGAGCTT
2951 TCTGGAATAC ATGACCCCAA GTTACATCAT CCTTCCCAAG GATTCCGCTT
3001 TGGAAGTGTG CGAGAAAGCA GTGCTGAAGA TTATGTGAGA CAAAGTTTCC
3051 CAGAGATGCA TGAATATATG AGAAGGTACA ATGTTCCAGC CACCCCTGAT
3101 GGAGTGGAGT ATCTGAAGAA CAATCCAGAG AACTAGACG CCTTCATCAT

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FIGURE 1, page 1 of 4

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3151 GGACAAAGCC CTTCTGGATT ATGAAGTGTC AATAGATGCT GACTGCAAAC
3201 TTCTCACTGT GGGGAAGCCA TTTGCCATAG AAGGATACGG CATTGGCCCTC
3251 CCACCCAACCT CTCCATTGAC CGCCAACATA TCCGAGCTAA TCAGTCAATA
3301 CAAGTCACAT GGGTTTATGG ATATGCTCCA TGACAAAGTGG TACAGGGTGG
3351 TTCCCTGTGG CAAGAGAAGT TTTGCTGTCA CGGAGACTTT GCAAATGGGC
3401 ATCAAACACT TCTCTGGGCT CTTTGTGCTG CTGTGCATTG GATTGGTCT
3451 GTCCATTTTG ACCACCATTG GTGAGCACAT AGTATACAGG CTGCTGCTAC
3501 CACGAATCAA AAACAAATCC AAGCTGCAAT ACTGGCTCCA CACCAGCCAG
3551 AGATTACACA GAGCAATAAA TACATCATTT ATAGAGGAAA AGCAGCAGCA
3601 TTTCAAGACC AAACGTGTGG AAAAGAGGTC TAATGTGGGA CCCCCTCAGC
3651 TTACCGTATG GAATACTTCC AATCTGAGTC ATGACAACCG ACGGAAATAC
3701 ATCTTTAGTG ATAGGAAGG ACAAACCAG CTGGGCATCC GGATCCACCA
3751 GGACATCCCC CTCCCTCCAA GGAGAAGAGA GCTCCCTGCC TTGCGGACCA
3801 CCAATGGGAA AGCAGACTCC CTAAATGTAT CTCGGAACCT AGTGATGCAG
3851 GAACTCTCAG AGCTCGAGAA GCAGATTCAG GTGATCCGTC AGGAGCTGCA
3901 GCTGGCTGTG AGCAGGAAAA CGGAGCTGGA GGAGTATCAA AGGACAAGTC
3951 GGACTTGTGA GTCCTAGGTG ACCACACTGC TTCCCTTTCT CAGTTCTCTGA
4001 CCTTCCCTCT AGCCCTTGAG ACACTTTGTA ATGCTCTTTT GTAACATATCG
4051 ACAAAGGTGT GGGGAAGCTG AGGTCTAGGT CTTCTTAAAG GTCAAGTCTG
4101 CTCTCCCTCG CCTAAAGTGC AGCAGCAGCT CCTCTCAAGC TCACTCTCTA
4151 GGTCTCCAGG GTAGGAGTGT TTTTCTAGCA AGAATCTTAG TCAGGAGTAA
4201 GCTCTGTGCG AGAGATCTGT GAATAACCAG ATAAACCCAG CTGCCGTAA
4251 CCTTTTCAAC AGGTGCCACA GTAATATTTT TGGTTTTTAG CCCTTTCTCT
4301 GCACTACCAA CAAGAGATAA AATTGTACT CACACTTATG TCTTACTGGG
4351 TTGCTGGTTT TCATCGTAAC ACAGAACGAG GTTATCTAGG GTTGTAGCTT
4401 TTGATACAAC TCCCCGATCT AGATTATTC CTACATTCTG AATGGGGAGC
4451 AGGTAAGAGC AGAGCACCTC CCACTGGGGG TGGGGTATTT AAAAATTAAC
4501 TCATTAGTAT CATAAACGTC AAGGATTGAT TGGACCAGGC AAGAGCCATG
4551 TTTTGTAGAA GGTTCTGGAT CTCTGACTCC ATCCTGACTG TTTAGTAAGA
4601 GCATGCTTAC ACCCTACTGT GAAAAGGGGA GGGGATGTGG TAAGCGGAAA
4651 CAGAAGACAG GCAGCAGAGG CATTAAAAAT GCATACCATG CTTTCAGAAC
4701 AAAAGCTCTG GGCCAGAAAG GCAATTGTGC TAAAAAATGA ATAAGACTAC
4751 TTCTAATGTA ACTAAGCATC TCCACTATGG TGTGTGCCCT TTATAAAGGA
4801 AAAGAGAGAA AAAGGCAAAG CAAGGTTGTG GCCTTAGGTT GGACCTGGAA
4851 TATCCCTTAT TGCCTATAAT GGAATATGTG AACTGTGGG TGAAATGTTT
4901 TACACACCAC AACTAGGCC ATTTTCAGAT CAGCAGTCAC CCATCGCTTA
4951 GCATAGAAAT CCCAAAACCT CCAGCCCGGG AACACTATAA GCTTCGACCA
5001 TTCAGGAATC TGCCCTGCAC TTTGCATATC TGTATAGAAA ATCAAGTCAA
5051 TCCCCCATCC TCACACCCAC TCATCTCTGA GGAGCTATGA ACTGGTTTTG
5101 GTCCCTCTAA TGATCCTCCA GCCTCATCTA ATGCCCCCCA AAGACTGATA
5151 CAAGTAACCT CCCCTCTGCT TAGGTGTCAC TTTCTCAGCA TATCAAGTTT
5201 AGGCAGCAAG GGAAAGGAAT ATGGGTCAGT TCTCAAATGT CAATGTAGAT
5251 AAGAGTCATC TAGTAGAGAA CTCATCAGAG TGCGGATTGC CAAGACCCCT
5301 CTCCAGAGAT TATGGGGTTG GGGGTGGAGG TCTAGAGGTG AGCTCAGAAA
5351 CCTACTGTTA ACCAACACCC CCAAGTGACT GACACAGGTG GTCTAAAAAT
5401 TACTTTTCTA GAAACACCAT TCTGGAAGTT TGGCTGCCCA CAGGCAGGAG
5451 GAGAAGCATG AAGAGAAAAC CTGTTTGAGA AGTTTTGTTT TGTTTTGTTT
5501 TGCTTTTTTAA TAATTTTAGC ACACATCTGC TGACTCTCCT TCAACATCCT
5551 CACCCCCACC CCTGGGCACC ATTTAGGACA AGACTTCCTT ATTTATCAAT
5601 TACTTGATTT ATCTTCTCAG GACTCATTGT TCCACCCCCA ACCAATTTGA
5651 ATGCCATCAA TAAGTTCAGG AGCTGTGCCA AGCACTTTC TCTTTTACAG
5701 CTGGAGATCA CTGGAAAGGT GTCTCAGTCA CAAAACCTCT CCCTCTACTA
5751 CTGGATGAAA TGTCTGCATT TCCACCAAAA TCTACCCAGT CACCCAGGGA
5801 ATAACAACCT AAGCTGTAGT TAGATAACAC CTAGTGATTA ATTGGCTGAG
5851 AAAACCTTGG AGTGGAGGGA GGCTCAGAGA TACTGATATG GATGTGGGAG
5901 GGCTCTAAAG TTAGAGGTCA CCAACTCCAC AGATGAAACA GTTCAATAAT
5951 GAGGAAACAG GTGAGCCCTG AAAACACAAA AGGACAGTTC TGTGTTGAAA
6001 CACCCATCC CCTCACGTTT TCACCCAGG CCCAGAAGTA GGTGCAACT
6051 GCCTTTGGAA GATTTTGGCC CTTAGCCATC CCCACCCACT TGTACCAGCT
6101 AAGAATGCTG GAGACTCTGC CACCATGCTC TGCGTGCCCC TGAACCTCTG
6151 TGCAGCCCGG AAGGCTGATG TACAGGTGTA CCTCAATCCA CATTACAGCC
6201 ATGCTCCTAA TGTACATGGA CATTTTGTGA ACTCAGCTCA TATTCTGACT
6251 GTATTTGAGA AGCTGGCTGT TTAAGGGAAC CCAGAAGTGA ATCTTTTGT

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FIGURE 1, page 2 of 4

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6301 AAAGTAAAGC ACCCTTTTGT AATGCAATTA ATTATCCCTT AATGTATCTG
6351 TTTTGTAAAGT CTGCATTTT GTATATCGGA TTTACCTTAA GCTTCTCTAG
6401 TGAGGCATTC TGAGCAGTGG TGATCACATG CCAGATCGCC CTGCCTATCC
6451 ACAAAGTAGA TGACCAATGC ACGCTCCTCA AACATCTTTG GAGGAACTAC
6501 CTGGCCAAAA CACTGGCCAG GATGCAGCAA GCAGCAGCAG GGGCTGACAG
6551 CAGGCTTACT GCCATCAACA TTGCTTGAAA TGCCTCTATG TTCTGAATAA
6601 AGAAAAACCA TAATTGCTTG TGGTGAAACG AAGCAGTCTT CATGTTAAGT
6651 AGCAATGGTT ATTTTATTG GTAGTAACTG AACAGTGTTT TGCAATTTGT
6701 GAAACAGTGT ATTGTGTTT GTAAAAATGAT GTCATGAAAT GGTGGGTCCT
6751 TGGAAACCTC CTTTCCGTTT AGCTCTGCCT CTGTTCTTTC AACTCCTTTG
6801 AGGCTCAAAA AAAACACAAA GATCAGAAGC CTTCAAGATG AGGGTGGTAT
6851 TCTGGTAAAG AAGAAAGAGA TAAGGGACGC TACCTTGCTT TTCTGGCACA
6901 GGAAGCATAT GATAAAGCAT GCTCAGATGA GCTGGAACAG ATATAGCTAC
6951 CTGGTTCGTG TAAATAAGAA TAATCAAGGC CCCAGAGTGT GTATGCTTCC
7001 AGGTGGAGGA GAAAGGGGAA TCTCCCAAAA TTTAAAAACA AATTGGAAGA
7051 ATAACCAGGA CAGCCAAGTG AAGCAGCCAC AGGGACCCAA GCAGTCGAGG
7101 TCTTTAATGT GCCTGGAGAT GACTCTCTGC TATTCATGAA TCTTGCTATT
7151 GCACAAACCC TATCAAGAGC TGCTGCTTCC CTTCCAGCCA GAAAAGTGGT
7201 AAGCGGAGCA AGTGCCAAGC AGAACAGACC TTATCATCTG GGTAACAGAC
7251 TTCTCAGTGT TGGTGCTGTG TCTGTTAGAG CCTTAGAGCA AGTTAAGCAC
7301 TTCCTTGGTG TGGGTAAAGA ATAAAGGGGA AAGAACTAC TTTAGAGCCT
7351 CTTTTTCTCC CAACTCATAT TTTTGATAGG AAAACAGAA AACCCATCCA
7401 GTTCTTCAGA AATTGCTTTC TAGGCATTAA TACTACTTTA CTATCTATAC
7451 TGTTTAGTTA TTCCTTTCTT TACCCACCTA AACTATCCAT CTAATCCAGG
7501 ATCCCTCAC TCTTTTTTTT TAGTTACTAA TCATTTTATG AAAATAATGT
7551 ATTTATAAGT ATTTTCTTAA GGTTTGTGAA GAGTATTTGC ATTGTGTCTT
7601 CATTTTAATG TGTTTGCAAT CGCTCCGCTC CAGGAAGAAC GGAAATGCTG
7651 TCTTGTGAGC ATGAAGTGAA CGGGCTGTTT TGCTCCAGCC ACTTTTCTTG
7701 TACAACCACA TGGATGGATT AGATGTCTC AGGTCTTTTC CATCTTCAGT
7751 TTCTATGACT GTGGAATAAA TGTTCAAGATA GAAACTTCA (SEQ ID NO:1)

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#### FEATURES:

5'UTR: 1-619  
 Start: 620  
 Stop: 3965  
 3' UTR: 3968-7789

#### HOMOLOGOUS PROTEIN:

##### Top 10 BLAST Hits:

gi 7514020 pir	T31068 N-methyl-D-aspartate receptor homolog NM...	1948	0.0
gi 5305435 gb	AAD41650.1 AF073379_1 (AF073379) N-methyl-D-aspar...	1936	0.0
gi 3025446 gb	AAC12680.1  (AC004528) R32184_2 [Homo sapiens]	906	0.0
gi 3822016 gb	AAD11811.1  (AF061945) NMDA receptor-like long va...	456	e-127
gi 286234 dbj	BAA02498.1  (D13211) N-methyl-D-aspartate recepto...	304	2e-81
gi 2155310 gb	AAB58801.1  (AF001423) N-methyl-D-aspartate recep...	302	1e-80
gi 6980982 ref	NP_036705.1   glutamate receptor, ionotropic, N-...	302	2e-80
gi 6680097 ref	NP_032196.1   glutamate receptor, ionotropic, NM...	300	4e-80
gi 6680099 ref	NP_032197.1   glutamate receptor, ionotropic, NM...	299	8e-80
gi 4099613 gb	AAD00659.1  (U88963) N-methyl-D-aspartate recepto...	299	8e-80
gi 228950 prf	1814459A D-MeAsp receptor:SUBUNIT=epsilon2 [Mus ...	299	8e-80
gi 548372 sp	Q00960 NME2_RAT GLUTAMATE [NMDA] RECEPTOR SUBUNIT ...	299	8e-80
gi 6980984 ref	NP_036706.1   glutamate receptor, ionotropic, N-...	299	8e-80

**blast to dbEST:**

ESTs (from GenBank EST division)

AI267842 aq35f07.x1 Stanley Frontal SN pool 1 Homo sapiens cDNA clone IMAGE:2032933, mRNA  
sequence [Homo sapiens]

**EXPRESSION INFORMATION FOR MODULATORY USE:**

Expression information from BLAST EST hit:

AI267842 228 bp mRNA EST 17-NOV-1998 frontal lobe of the brain

Expression information from cDNA library screening:

Human Liver

Human Brain

Human Fetal Brain

Human Bone Marrow

Human Adrenal Gland

Human Heart

Human Mammary Gland

Human Pituitary

Human Testis

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1  MRRLSLWLL SRVCLLLPPP CALVLAGVPS SSSHPQPCQI LKRIGHAVRV
51  GAVHLQPWTT APRAASRAPD DSRAGAQRDE PEPGTRRSPA PSPGARWLGS
101 TLHGRGPPGS RKPGEARAE ALWPRDALLF AVDNLNRVEG LLPYNLSLEV
151 VMAIEAGLGD LPLLPFSSPS SPWSSDPFSF LQSVCHTVVV QGVSALLAFP
201 QSQGEMMELD LVSLVLHIPV ISIVRHEFPR ESQNPLHLQL SLENSLSSDA
251 DVTVSILTMTN NWYNFSLLLC QEDWNITDFL LLTQNNSKFH LGSIIINITAN
301 LPSTQDLLSF LQIQLESIKN STPTVVMFGC DMESIRRIFE ITTQFGVMPP
351 ELRWVLGDSQ NMEELRTEGL PLGLIAHGKT TQSVFEHYVQ DAMELVARAV
401 ATATMIQPEL ALIPSTMNCM EVETTNTLTSG QYLSRFLANT TFRGLSGSIR
451 VKGSTIVSSE NNFFIWNLOH DPMGKPMWTR LGSWQGRKIV MDYGIWPEQA
501 QRHKTHFQHP SKLHLRVVTL IEHPFVF TRE VDDEGLCPAG QLCLDPMTND
551 SSTLDSLFSV LHSSNDTVPI KFKKCCYGYC IDLLEKIAED MNFDFDLYIV
601 GDGKYGAWKN GHWTGLVGD LRGTAHMAVT SFSINTARSQ VIDFTSPFFS
651 TSLGILVRTR DTAAPIGAFM WPLHWTMWLG IFVALHITAV FLTLYEWKSP
701 FGLTPKGRNR SKVFSFSSAL NICYALLFGR TVAIKPPKCW TGRFLMNLWA
751 IFCMFCLSTY TANLAAMVVG EKIYEELSGI HDPKLHHP SQ GFRFGTVRES
801 SAEDYVRQSF PEMHEYMRRY NVPATPDGVE YLKNDEPEKLD AFIMDKALLD
851 YEVSIDADCK LLTVGKPF AI EGYGIGLPPN SPLTANISEL ISQYKSHGFM
901 DMLHDKWYRV VPCGKRFAV TETLQMGIKH FSGLFVLLCI GFGLSILTTI
951 GEHIVYRLLL PRIKNKSKLQ YWLHTSQRLH RAINTSFIEE KQQHFKTKRV
1001 EKRSNVGPRQ LTVWNTSNLS HDNRRKYIFS DEEQONQLGI RIHQDIPLPP
1051 RRRELPA LRT TNGKADSLNV SRNSVMQELS -ELEKIQVIR QELQLAVSRK
1101 TELEEQRTS RTCS (SEQ ID NO:2)

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#### FEATURES:

##### Functional domains and key regions:

PDOC00001 PS00001 ASN\_GLYCOSYLATIONN-glycosylation site

Number of matches: 16

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1 145-148 NLSL
2 264-267 NFSL
3 275-278 NITD
4 285-288 NNSK
5 296-299 NITA
6 426-429 NLTS
7 439-442 NTTF
8 549-552 NDSS
9 565-568 NDTV
10 709-712 NRSK
11 886-889 NISE
12 965-968 NKSK
13 984-987 NTSF
14 1015-1018 NTSN
15 1018-1021 NLSH
16 1069-1072 NVSR

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-----[2]  
PDOC00004 PS00004 CAMP\_PHOSPHO\_SITEcAMP- and cGMP-dependent protein kinase phosphorylation site

2-5 RRLS

-----[3]  
PDOC00005 PS00005 PKC\_PHOSPHO\_SITEProtein kinase C phosphorylation site

Number of matches: 14

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1 85-87 TRR
2 110-112 SRK
3 1098-1100 SRK
4 317-319 SIK
5 334-336 SIR
6 448-450 SIR
7 441-443 TFR
8 334-336 SIR
9 448-450 SIR
10 636-638 TAR
11 704-706 TPK
12 741-743 TGR

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13 796-798 TVR  
14 976-978 SQR

-----[4]  
PDOC00006 PS00006 CK2\_PHOSPHO\_SITECasein kinase II phosphorylation site  
Number of matches: 17  
1 202-205 SQGE  
2 248-251 SDAD  
3 303-306 STQD  
4 383-386 SVFE  
5 519-522 TLIE  
6 552-555 STLD  
7 563-566 SSND  
8 693-696 TLYE  
9 796-799 TVRE  
10 800-803 SSAE  
11 801-804 SAED  
12 809-812 SFPE  
13 949-952 TIGE  
14 986-989 SFIE  
15 1030-1033 SDEE  
16 1080-1083 SELE  
17 1101-1104 TELE

-----[5]  
PDOC00007 PS00007 TYR\_PHOSPHO\_SITETyrosine kinase phosphorylation site  
1099-1106 RKTELEY

-----[6]  
PDOC00008 PS00008 MYRISTYLN-myristoylation site  
Number of matches: 10  
1 27-32 GVPSSS  
2 292-297 GSIINI  
3 369-374 GLPLGL  
4 430-435 GQYLSR  
5 444-449 GLSGSI  
6 482-487 GSWQGR  
7 535-540 GLCPAG  
8 606-611 GAWKNG  
9 680-685 GIFVAL  
10 876-881 GLPPNS

-----[7]  
PDOC00009 PS00009 AMIDATIONAmidation site  
Number of matches: 2  
1 485-488 QGRK  
2 913-916 CGKR

-----[8]  
PDOC00017 PS00017 ATP\_GTP\_AATP/GTP-binding site motif A (P-loop)  
373-380 GLIAHGKT

Membrane spanning structure and domains:

1	13	33	1.496	Certain
2	182	202	1.149	Certain
3	206	226	0.679	Putative
4	251	271	0.628	Putative
5	399	419	0.694	Putative
6	639	659	0.949	Putative
7	675	695	2.050	Certain
8	711	731	1.052	Certain
9	744	764	1.803	Certain
10	931	951	2.294	Certain

# **BLAST Alignment to Top Hit:**

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>gi|7514020|pir||T31068 N-methyl-D-aspartate receptor homolog NMDAR-L
- rat >gi|1050330|gb|AAA99501.1| (L34938) ionotropic
glutamate receptor [Rattus norvegicus]
>gi|2160125|gb|AAB58957.1| (U29873) NMDAR-L [Rattus
norvegicus] Length = 1115
Score = 1948 bits (4990), Expect = 0.0
Identities = 941/1089 (86%), Positives = 992/1089 (90%)
Query: 27 GVPSSSSHPQPCQILKRIGHAVRVGAVHLQPWTTXXXXXXXXXXXXXXXXXGAQRDEPEPGTR 86
GVPSSSSHPQPCQILKRIGHAVRVGAVHLQPWTT GAQRD+PE GT
Sbjct: 27 GVPSSSSHPQPCQILKRIGHAVRVGAVHLQPWTTAPRAASRAQEGGRAGAQRDDPESGTW 86

Query: 87 RSPAPSPGARWFGSTLHGRGPPGSRKPGEGARAEALWPRDALLFAVDNLNRVEGLLPYNL 146
R PAPS GARW GS LHGRGPPGSRK GEGA AE LWPRDALLFAV+NLNRVEGLLPYNL
Sbjct: 87 RPPAPSQGARWLGSALHGRGPPGSRKLGEGAGAETLWPRDALLFAVENLNRVEGLLPYNL 146

Query: 147 SLEVVMAIEAXXXXXXXXXXXXXXXXXXXXXXXXXXQSVCHTVVVQGVSAALLAFPQSQGEM 206
SLEVVMAIEA QSVCHTVVVQGVSAALLAFPQSQGEM
Sbjct: 147 SLEVVMAIEAGLDLPLMPFSSPSSPWSSDPFSFLQSVCHTVVVQGVSAALLAFPQSQGEM 206

Query: 207 MELDLVSLVLHIPVISIVRHEFPRESQNPLHLQLSLENSLSSDADVTVSILTMNNWYNFS 266
MELDLVS VLHIPV+SIVRHEFPRESQNPLHLQLSLENSLSSDADVTVSILTMNNWYNFS
Sbjct: 207 MELDLVSSVLHIPVLSIVRHEFPRESQNPLHLQLSLENSLSSDADVTVSILTMNNWYNFS 266

Query: 267 LLLCQEDWNITDFLLLTQNNKSFHLGSIINITANLPSTQDLLSFLQIQLESIKNSTPTVV 326
LLLCQEDWNITDFLLLT+NNSKFHL S+INITANL ST+DLLSFLQ+Q+++I+NSTPT+V
Sbjct: 267 LLLCQEDWNITDFLLLTENNSKFHLESVINITANLSSTKDLLSFLQVQMDNIRNSTPTMV 326

Query: 327 MFGCDMESIRRIFEITTQFGVMPPELRWVLGDSQNMEELRTEGLPLGLIAHGKTTQSVFE 386
MFGCDM+SIR+IFE++TQFG+ PPEL WVLGDSQN+EELRTEGLPLGLIAHGKTTQSVFE
Sbjct: 327 MFGCDMSIRQIFEMSTQFGLSPPELHWVLGDSQNVEELRTEGLPLGLIAHGKTTQSVFE 386

Query: 387 HYVQDAMELVARAVATATMIQPELALIPSTMNCEVETTNTLSGQYLSRFLANTTFRGLS 446
+YVQDAMELVARAVATATMIQPELAL+PSTMNCM+V+TTNLTSGQYLSRFLANTTFRGLS
Sbjct: 387 YYVQDAMELVARAVATATMIQPELALLPSTMNCMDVKTTNLTSGQYLSRFLANTTFRGLS 446

Query: 447 GSIRVKGSTIVSSENNFFIWNLQHDPMGKPMWTRLGSWQGRKIVMDYGIWPEQAQRHKTH 506
GSI+VKGSTI+SSENNFFIWNLQHDPMGKPMWTRLGSWQG +IVMD GIWPEQAQRHKTH
Sbjct: 447 GSIKVKGSTIISSENNFFIWNLQHDPMGKPMWTRLGSWQGGRIVMDSGIWPEQAQRHKTH 506

Query: 507 FQHPSKLHLRVVTLIEHPFVFTREVDDDEGLCPAGQLCLDPMXXXXXXXXXXXXXXXXXXXX 566
FQHP+KLHLRVVTLIEHPFVFTREVDDDEGLCPAGQLCLDPM
Sbjct: 507 FQHPNKLHLRVVTLIEHPFVFTREVDDDEGLCPAGQLCLDPMTNDSSMLDRLFSSLHSSND 566

Query: 567 XVPIKFKKCCYGYCIDLLEKIAEDMNFDFDLYIVGDGKYGAWKNHWTGLVGDLLRGTAH 626
VPIKFKKCCYGYCIDLLE++AEDMNFDFDLYIVGDGKYGAWKNHWTGLVGDLL GTA+
Sbjct: 567 TVPIKFKKCCYGYCIDLLEQLAEDMNFDFDLYIVGDGKYGAWKNHWTGLVGDLLSGTAN 626

Query: 627 MAVTSFSINTARSQVIDFTSPFFSTSLGILVRTRDTAAPIGAFMWPLHWTMWLGIFVALH 686
MAVTSFSINTARSQVIDFTSPFFSTSLGILVRTRDTAAPIGAFMWPLHWTMWLGIFVALH
Sbjct: 627 MAVTSFSINTARSQVIDFTSPFFSTSLGILVRTRDTAAPIGAFMWPLHWTMWLGIFVALH 686

Query: 687 ITAVFLTLYEWKSPFGLTPKGRNRSKVFSFSSALNICYALLFGRTVAIKPPKCWTGRFLM 746
ITA+FLTLYEWKSPFG+TPKGRNR+KVFSFSSALN+CYALLFGRT AIKPPKCWTGRFLM
Sbjct: 687 ITAIFLTLYEWKSPFGMTPKGRNRNRSKVFSFSSALNVCYALLFGRTAAIKPPKCWTGRFLM 746

Query: 747 NLWAIFCMFCLSTYTANLAAMVGEKIYEELSGIHDPKLHHP SQGFRFGTVRESSAEDYV 806
NLWAIFCMFCLSTYTANLAAMVGEKIYEELSGIHDPKLHHP SQGFRFGTVRESSAEDYV
Sbjct: 747 NLWAIFCMFCLSTYTANLAAMVGEKIYEELSGIHDPKLHHP SQGFRFGTVRESSAEDYV 806

Query: 807 RQSFPEMHEYMRRYNVPATPDGVEYLKNNPEKLDAFIMDKALLDYEVSIDADCKLLTVGK 866
RQSFPEMHEYMRRYNVPATPDGV+YLKN+PEKLDAFIMDKALLDYEVSIDADCKLLTVGK
Sbjct: 807 RQSFPEMHEYMRRYNVPATPDGVQYLKNDPEKLDAFIMDKALLDYEVSIDADCKLLTVGK 866

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Query: 867 PFAIEGYGIGLPPNSPLTANISELISQYKSHGFM DMLHDKWYRVVPCGKR SFAVTETLQM 926  
 PFAIEGYGIGLPPNSPLT+NISELISQYKSHGFM D+LHDKWY+VVP CGKR SFAVTETLQM  
 Sbjct: 867 PFAIEGYGIGLPPNSPLTSNISELISQYKSHGFM DVLHDKWYKVVP CGKR SFAVTETLQM 926  
  
 Query: 927 GIKHFSGLFVLLCIGFGLSILTTIGEHIVRLLLPR IKNKSKLQYWLHTSQR LHRAINTS 986  
 GIKHFSGLFVLLCIGFGLSILTTIGEHIV+RLLLPR IKNKSKLQYWLHTSQR HRA+NTS  
 Sbjct: 927 GIKHFSGLFVLLCIGFGLSILTTIGEHIVRLLLPR IKNKSKLQYWLHTSQR FHRAINTS 986  
  
 Query: 987 FIEEKQQHF KTKRVEKRSNVGPRQLTVWNTSNL SHDNRRKYIFSDEEGQNQLGIRIHQDI 1046  
 F+EEKQ KTKRVEKRSN+GP+QL VWNTSNL SHDN+RKYIF+DEEGQNQLG + HQDI  
 Sbjct: 987 FVEEKQPRSKTKRVEKRSNLGPQQLMVWNTSNL SHDNQRKYIFNDEEGQNQLGTQAHQDI 1046  
  
 Query: 1047 XXXXXXXXXXXXXTTNGKADSLNVS RNSVMQELSELEKQIQVIRQELQLAVSRKTELEEY 1106 (residues 27-  
 1106 of SEQ ID NO:2)  
 TTNGKADSLNV+R+SV+QELSELEKQIQVIRQELQLAVSRKTELEEY  
 Sbjct: 1047 PLPQRRREL PASLTNGKADSLNVTRSSVIQELSELEKQIQVIRQELQLAVSRKTELEEY 1106 (SEQ ID NO:4)

**Hammer search results (Pfam):**  
 Model    Seq-from   Seq-to   HMM-from   HMM-to   Score   E-value   Description  
 lig\_chan 674        952        1        304    199.6   1.7e-57   Ligand-gated ion channel

FIGURE 2, page 4 of 4



1 ATGGAACTT TAGCTCATGA ATCAAAACAA CCCTCCAGAG CTAAGGCCA  
 51 GCTGTATTG CATAACAATT TAGCAGATCC AAACAGCAGG GCAAGGTCGG  
 101 GTGAAATAAG TTGCCAAGGT CATGGTCATG AAGTAGTATT AGACTCAGAA  
 151 AGGCTGATCC CCAGTGCTTG CTCCACCCCA TGGATCTCTC CTACCCTCCT  
 201 TCTAAACGAT ACTGTGGGAT AAAATAAAAT TAATCTACTG TATATGTGCA  
 251 AACCACAGGC CTGCCCTTAA CTCTTCTCTT ACCTTCTAGT TTCAGATTAT  
 301 TCAAATCATG GAGGAAAAGA TTAGATCACA ACACGTTGAC TTCACTGTAT  
 351 TACCATACAA ATGAAATAAC TTAGTACAAA CTGTGATCTG GGGACTCTTG  
 401 ATCTAACTG GGAAGTCTG TTGACTGCAT TTTAACTCT AAAAGTATTT  
 451 TGAACTCTT TAATTTCTTG AACTGAAAAA ATTGCTTTGA ATTCACTTTG  
 501 TTTTAACTCT GAGAACCTAA AAACAGGGAT TCTTTAAAAA AAAAAATGCA  
 551 AAGCTCACA TCAGCAAGAG AAAGAAGCTG AGGAGATAAA AATGTGTAAA  
 601 TAATCTTAC TTTAATACCC TTAGCTAGAA AAACCTTAAA AGCGACACAT  
 651 CCAGAAGCTC GTTAAGTCAC AGCCTCTTTG AACCTATTTT AGTGAACCAC  
 701 CGAATTTTCA ATCCCTCAGG TGCAGCTCTG AATTCAGAAT TCTACCGGC  
 751 TCATAGTCCT ATTTTCTTTC TTAGGTTTTA GGGAAATTTG CAAACTATGA  
 801 CGCCAGCCT TTGAGGGGAG AGGACTTTCC AGGGGCGCGG GATGTGCCAC  
 851 TCGGGAATCT CACCAACAGT GGGCGTTTAG CGCAGCCAAG CGACAGGCAG  
 901 GCGCCAGGCG TCAGCAACAG GGAGGCGCGG GCTGAGGCGG GGAGAACTTT  
 951 GCGCTCGGA GCAGAGCCAC CCTTTGCTGG CCAGTCGCGT TGCTCCTCCG  
 1001 AGGAAGCAAG CGGCGGTGG GACTCGGTGG AAAATAACG AAAGAAAGGC  
 1051 AGAGAGGAAG TAGCGAGAGA AGAGAGAAAA TGAAGTCGGC GCTGGGGGAG  
 1101 CCTGCAGGAG GGTGGCCAAC AGTGGAGGAA GGTGGATTTG GCTTCTTTTC  
 1151 CGCACCCCGG GCGTGAAGAG CCTCTCCAAC GCGACCCAG GAAATAAGTG  
 1201 GGTCTCGCCT GGGCAGAAAA GGAAGAAT CCAGGCGAGA GCGGCTCGCT  
 1251 CCTCTGTAC TGCTGCCCGG GAGGAAGTCC GGCTGCTTCT CATCCCGGCC  
 1301 GCCTCGCGGG GCGGACGCA GTGCGGAGG CGCCTGCAG ATGGGGCGGG  
 1351 CAGGGAACGG GCGCTCCAGC TGCGGGTGAC AGGCGCCGGC CCGCCCGCCT  
 1401 GCCTGTCTAG CGCAGTGACC GGGCGGGCAG AGGATGCCAG GCGAGGGGAC  
 1451 CTGGGAGCGG GATCTGAGAC TGCCGAGGC GCGTACGCT CCAACTTGCA  
 1501 TGGCCTAGAG ACCGCTCCAG CTCTGGGAC CGCTTACCG AGTGGAGTGA  
 1551 AGCTGCGCGG GTGACCTGGA GCGGAGACC TCAGGCAGCG GCTGCAGAGG  
 1601 GGCGAGCCGG GCGCAGGAGG GGGCGCGCTT TCTCCCTGCG GGTCTCAGTA  
 1651 ATGAGGAGAC TGAGTTTGTG GTGGCTGCTG AGCAGGGTCT GTCTGCTGTT  
 1701 GCGCCCGCCC TGCGCACTGG TGCTGGCCGG GGTGCCAGC TCCTCTCGC  
 1751 ACCCGCAGCC CTGCCAGATC CTCAAGCGCA TCGGCGACGC GGTGAGGGTG  
 1801 GGCGCGGTGC ACTTGACGCC CTGGACCACC GCGCCCGCG CCGCCAGCCG  
 1851 CGCTCCGAG GACAGCCGAG CAGGAGCCCA GAGGATGAG CCGGAGCCAG  
 1901 GGAGTAGCGG GTCCCGGCGG CCCTCGCCGG GCGCACGCTG GTTGGGGAGC  
 1951 ACCCTGCATG GCGGGGGGCC GCGGGCTCC CGTAAGCCCG GGGAGGGCGC  
 2001 CAGGGCGGAG GCCCTGTGGC CACGGGACGC CCTCCTATTT GCCGTGGACA  
 2051 ACCTGAACCG CGTGAAGGG CTGCTACCCT ACAACCTGTC TTTGGAAGTA  
 2101 GTGATGGCCA TCGAGGCAAG CCTGGGCGAT CTGCCACTTT TGCCCTTCTC  
 2151 CTCCCCTAGT TCGCCATGGA GCAGTGACCC TTTCTCCTT CTGCAAAGTG  
 2201 TGTGCCATAC CGTGGTGGTG CAAGGGGTGT CGGCGCTGCT CGCCTTCCCC  
 2251 CAGAGCCAGG GCGAAATGAT GGAGCTCGAC TTGGTCAGCT TAGTCTGCA  
 2301 CATTCCAGTG ATCAGCATCG TGCGCCACGA GTTCCCGCG GAGAGTCAGG  
 2351 TGAGAGGAGC CTGGTGCGTG GAGTGGAGAT GGGCGCTGCT GGGGGCCGGG  
 2401 GCCATTGCAT GAGGGGAGAG AAAACGGCTT GGTAAAGTCT GAGGGGAGTT  
 2451 GTTACTTTAT AACTTTGATA TTGCTTAACG ATTGGGCCAT GTTCGTAGGT  
 2501 GGTAGGTAGA AGGAGCTTAG TAGAAGTAGA ATAAATATT TAAAGCGCGG  
 2551 ATGGAATAA AACGCGCAGT GAGGTCGCGG CTGGAAGGAA AGAAGTGGGG  
 2601 AGAATATGAG AGAAAATCAT ATTTTGACCG GCTGGGAGAA ATCTAGTAGA  
 2651 TGCCCGACGG GAAGTAGAAG TCGAGGTTCA GGACCGTGA GAGCGGTGAA  
 2701 GGTTCTGAAG AACTACAAGA GCAGGGTATG GGGGTGGGGT ATCCCTGACT  
 2751 CCTGGCTAGG TGTCACACTC CCAAGAGCAA CTCTGACAGC ATGTGTCGGA  
 2801 AAAGCAGCAT CTGCTCTCTC TGAAGTCTT AGAAGGTGTG CCTGAGCCTT  
 2851 AAGCAAAAGT GTAAGGAAGA AAGCACATCG CTCTGAATTC CTCTGGGTAA  
 2901 ATAGAAAATC TGCACCTAGT ACAGAAGCCA TAGGTAGAGA AGAGTGGTCA  
 2951 ATTAGTCTCG GATATTGGAA AGCATTAGAA ATATATAAAA GTGTAAAGAT  
 3001 GGACGGGGAG ATTTATTGGG GGATTGTTTC TTTGTCCCTA CTTTCTTCT  
 3051 ATGTAATGTG GACTCAGAGG CTGGTATTCA GTTGCTGTGT TCAGCCATT  
 3101 TCTCTCCCA TCATCTAAGA ATTAATAAAA AAAAGGAATT AAATGATTTA  
 3151 GTTCTTATT GATTAAAAA GCTAAACATA TTTTCAATGA AAGAGCTATT

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3201 TGTGAACTTA ACGTTGACAA GTAATAATGA GGAGATGAAT CTTTAAGGAC  
3251 AAGACAGAGT CCTTATTTAG TAATGAGTTT TCTGCCTTTT ATATGTTACT  
3301 TTTATCATAA TCTCAAGCTG TGTTAAGCCT TGCACAAAGT ATCTATGAAG  
3351 CAAATAGGTA ATTGGCATGG GCCCATTTTA ACGACTGAGA AACTGAGAAA  
3401 AGTCTGGGGC CTTGATCAAC ATTGGTCAGT GTACTAGTAA AAAAGTCCAC  
3451 ATTCTGGAGG ATTTCTGACT CTACATCATT TTCACTCAAC TCTTGCAGCT  
3501 GGAAAAATAT GTATTTCCAA TCTTCTTCCA CTTCTGATAT ATGTGCCGAG  
3551 ATAAAACTA AAATGAGTAA GGGCAATGTA CAATGAAAAG TTTGATAGAA  
3601 TCTATGCATA AATTGTCAAG GGAGTACTAA AGATTTCTTT TTCTAGAAGA  
3651 AAATAAATCT TACATTTTTA ATCTTAGGAA GGTTGAGTAC AAGCCATATT  
3701 CAGCAGTTGC CCAGAAGATT CCTAGCCGAA CTACAGAGAT TTGATCTGTA  
3751 GAGTGCAGGC TAATTAACCTT TTATATAAAA TATTTCTGTC ACCTGAATCT  
3801 GAATGGTGTA GGCAGCAGAT GGGAAAGCAT GGAAAAACACA GATACACAAT  
3851 GCTGCCAATG ACCAAAGTGT TATAAACATG AAATTGCATC CATAGGGTGC  
3901 ATCATTATTA ATATACATGC AGAATCAGAT CTAACAAAAT GCAGGAGTCA  
3951 GCATCACTTG CTTCTTATCA TTGCTTCTTT ATTACCTAAT ACTTCGTAAG  
4001 TGGCCAATAG TGGTCACAGT CTCCAGACTC CTTTTCATTT GTAGATTGTT  
4051 TGGCAAGAGT CTTAAGTAGC AAGAATTTT CACCAAAATT CGTGTTCCCT  
4101 AGTTAGAAGG GAAGTTGTGT TCTAGAACGG ATGTGTGCAG CATACAGCAC  
4151 ATTACAACAA GGGGACCAGA AAAACCATGA AGCAGAATCC AGAATCTGTA  
4201 AACTTCAAAG CTCTAAGACC GGGGTGGGGG GTGGATAAAG TCCTCCAGGG  
4251 ACAAGCTGAC AATAAAAATA ATACGCTGTC AAGCACATTT GTTCTGTAT  
4301 TTCAACTCAG AAACATATTT TAAATCACTG TTGTCACTGT TACCTTCATG  
4351 GCACACATCT TGAAAGGGAG AGATTATTAT ATTAATCAG ATCTAGTTTG  
4401 TTCAACTGAC TACATTTTCT TTCATCTCCC TTTTACTTT AAATCAAAC  
4451 ATATCTAATT TGTCTTACTT TTGGTATCTC ATTTAAATGT CATCTATAA  
4501 TATTCTGTAT TAAGAATGTT CTGATCAATG CCAAGTCACT GTAATATATA  
4551 ATTTTAAGAT GACCGTAATC TGCTTTCAGT GAAAACAATA ACTGATCTTT  
4601 CCCTTGCTTC TCTGGAAAAG TGGACCTTCC TCTAATGCAG TGATGTGATT  
4651 TTTAAAAACT TTCTATATAT AAAAGGATGT CAAACTCATT TTACACATTA  
4701 AATAAAATG ACTTAATCTA GCCACCATCC TCGGAGTCTA CTGCCAGTG  
4751 ACCTAATTTG TTGGTTGTGT GCCACTCCCT GAATAAAGGA TTCGAGAAGA  
4801 AAGTGGACTT TTTACACAA CCAAGTAAAA TAAAATGTG TCTCTTACTT  
4851 AAATCAAAAT TGCTTTCATA GCAAGAGCAG CAACAGCTGT TTTCTCTCAC  
4901 TTTATTTTGG GCTGCTGATT ACATTATCT GAAGGTTTTA ATTAATGAGC  
4951 AATAGTTTTG GTAACATCCT GCCACAACCT TTAATGGAA AGAGCTGCCA  
5001 CTGAGATGGA CAAACCCCTG AGAAAAGCAT AATAGTTTTA TTTCAATACA  
5051 CTATGTATTC AAAATAAGAT AATCACATAA GATCATCACC TTCTAGGGGA  
5101 TCAGCTTCTT TCAAGTAGGG AAATTCATTA AAAGTAAGTT AGTTAACTAC  
5151 ATACTTTTGG AAAACATATG TATATTATAA CTGCATAATA AAAGCTTAAT  
5201 AAAACATTAA ACATAGGATG GGGTCAAAGC AGTTTTCCAT CAAAAGAATT  
5251 CTGACTTAC TACAACACTC AAACCCCACT TGAGGCTAAC CCATTTTATT  
5301 AAAATGATTA CTTCTTTGTT CTAAATTCTA TTCTTATAAC CTTCAAATAA  
5351 TGATGCTGAA TATGAACCTA ATTCCATTTA CACCTAAATT AAATTCCTGC  
5401 AGTTATACCT TCTTCTCTC TCCTTCTTAC ATGACTTTTT CTTCTACAGG  
5451 TTTTGTGTAG TTTCTTCAA GTTAACTCCC TAAAGTTTAC CTGCTGAAGT  
5501 AGTGACAAGT ACACATTTTT TTAAAAAAAT ATACACCTCA CCTTAACTTC  
5551 ATATTGGTTC TATTAGGCAG AGTTAATGAT GTAATATAAT TGGCTTAGAT  
5601 CCAAATCCAT GCAATTCAAA AGTGACTGCA CAGCCAGGCA TGGTGGCACC  
5651 TACATGTAGT CTCAGCTGCT TGGGAGGCTG AGGCAGGAGG ACGGCTTGAG  
5701 CCAAGAGTT CCAGACTACC CTGGGTGACA TAGTAAGACC CTGACTCTTA  
5751 AAAAAATTTT TTAATTAATA AAAAAAGTGA TCCCCTACT ATTTTCAACA  
5801 CTCTCGTTGA ATACACCAAC CACAACCTTG CCTGCTTCAT GAGCGATATG  
5851 TACTAACAAA TTAATATATG CTTCTTTCAT GGAAATACAA GTGTTTTAAA  
5901 TTGTGCAATT TCTCTGACAG TACAGGACTA AGCACTGAAG CCTATTATT  
5951 AGAATTTGGC TAACAAAGCA CTATTTTTCG ATGGCACAGG GGTACCTCAT  
6001 GAGGGGACCA GTAAGGGATA TTTATTTTAA AAACATCTGC TCTCAACTGT  
6051 GTTGGTTTTG TTTGACTTGC TCTATGCAAA TCACAGCTCT TTCTCCTCTG  
6101 GGGGAAATGT ATTCTGCAAT TCATGATGAA TAGCTGATAG TCGCATCTAA  
6151 TTGTGCTGTA CTTAAAGATA AACAATTTC AATTAAATGT CAAGTGATGC  
6201 AAAACTTTTT AAAGCAGTGA TCTTTTACAG GTTCCTCTTG AAGAACAGAG  
6251 ACCTGGCATT AACTTGGAAG TATTTTAA TTTAGTTATT TACTTACAAT  
6301 ATGTATTCGC TTTTCTAGAT AAGTAGAGCA AAGGAGACTA GCAGGCACCA  
6351 TTTATTGAGC AATTAGTTG TCTCTCCCGC TTTACTTTGT GCTTGCCAGA

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6401	AGAGTATCAC	TTAATCCATG	AAGAATATAT	TTGCTCTTGA	TTTTGTCTGA
6451	CCATTATATC	TTAGAGTTAA	TTTATGATCG	AATCAGCTGA	GGTATCTGAA
6501	GACTGATGCC	AATTTCTAAT	TCCTCGTGTT	TTATCTTCTG	GTGCTGCAGA
6551	AGGCACCATG	GATTTTGTAC	CATTAGATTT	TATTTTATAA	ATAACCCCCC
6601	AGTCAAATTC	CAACCACAAT	AGTTAAAAGA	GCACAATGTA	ATGAAACGCA
6651	TATGAAATAG	TGGCCAAAAT	GTTCCCAATC	TGCCCTCTTC	GTTGCAGATG
6701	TTCCCAATCT	ATCTCTCACT	AGCCATGTAA	TTTTGGGCAA	GTGACTATCT
6751	CTGAGCATCT	ACACTTATCA	GAAGTGTAAG	TCAAAGAAG	GTACTTTACC
6801	AATCTGACAA	AGATGTGTG	AATCAAATGA	GAAAGTAAAA	GTACTTTGGA
6851	AAAGTTATAG	TGTTACCCAA	ATAACTAGTG	GAGAGGTGTT	GGTCATTATC
6901	TGGTAAGAAT	CACCTAAGTG	TTAAAGTTCA	ACTAATTTTC	TTTTCGAAAT
6951	TACTAATCAA	AATGAGATAT	GATTCACATG	TAAAATGTTT	GCATTCCCCT
7001	TACACCTTCC	TCTTTACCCT	CTCCCTCATT	TTTTTCTCTT	AAAAAAAAGT
7051	GGGCTTAGAA	ATAAACAAAC	AAACAAAAAA	CTAGGTTTCT	AAGTAGGTTG
7101	CACACTTGCC	TGGAAAAAGA	AGACATGCCA	CAGTACTGTT	TCTGTATTAC
7151	CAGCAACTTT	TAACCTATGG	CACATCTAAC	ACAGCTTCTA	GAGCCTTAAG
7201	TCCTGCCATA	GAAATATCAT	TAAGATGCCC	AAGATATTTG	AGAAATGTTG
7251	GTCTTTCACA	TTGCTCATAA	GTTTTTTCTA	TAGGCAAACT	ATCATTTCAGG
7301	AAATTATGAC	CAAAACAGAGT	CTACCCCACT	CTCACTCCTA	TTCCGCCAAC
7351	TACACCACAA	AGCAAACATC	CAAATTTTTT	CATAGCAAAAC	TTTCTTGATA
7401	AGGAAAGCAG	TGTGTTGATT	CATACTGACC	TAAGCTCCTT	ATCTCATCAT
7451	GGATATATAA	TTTACAAACC	AGCTACTTTG	AGTCCCATTG	CCCTAGATAA
7501	CTGTATACTC	TCTTAGGAAA	GTATTGCTCA	TTTTAGTGGC	AACAGTAAAT
7551	ATAGAGATGA	GAAATCTCAT	TGTCTTTTTT	TCTGCTAGCT	CTGGCTATTG
7601	CCACATATAC	ACAAGAATAG	AGGACCTATG	TAGCACCAGA	AATATGATGC
7651	CAAATCCATA	AAACTAGGCA	AGAAGAAAAGA	ACATCTCTTA	GCATCTGCCA
7701	TATTACTTTT	TGAGTGAATG	TTTGAATGAC	AAACTCATAG	AAATTTTTTA
7751	CCTCTCAGTT	GTCTTTTGCT	GATATTTTCT	CTATGAGATC	ACAGGAGCAA
7801	AGAGCAATGG	GGAAGAGGTG	AGCTAAGAGT	AAGCCAACTC	TCTCCATTTC
7851	CTTCTCCTTT	CCTCAACCTG	ACACCTCAGC	CAAATTCCTA	GATATTTTAT
7901	TTAATTGTGT	AAGATTCATG	CACCTTCAGG	GAGACTGTCA	ACTGTATTG
7951	ATCTCTTGCC	TTGAAAAAGT	GGGTTGATCC	CTGACCTGGC	TGGCATATG
8001	TCATGAGGAG	TAAACTTTGA	CATTGAAAGG	CTGGTGTCTG	ATTGGCCAGG
8051	GCTGGTTTGT	TAATGGAGAT	GAGCCTGCAA	GGGTTTCATG	GGTAGAGAAT
8101	TAAGCAGGAT	GACTCCTTTT	TCAGTCAGGA	TGAATTACAC	CTCATCGTTA
8151	TTCAATTGAA	GCATAGATTT	AGGAAGAATT	TTAATCATAT	TATATTTTTG
8201	CAGCATTTAT	GTTTTCAAGG	CTTTTCCCCC	AAATATGTTT	AAATAATCTC
8251	CTAACAGCCC	CTGTAAAGCA	AATGACTATG	TATAGACAAA	ATATGGAGAA
8301	ATAGAAAAGAA	CTATGCATTG	TAGAAAGTGAG	AAGCCATCCA	GAAGAAAAAC
8351	AGACTAATAG	CACCTTCTTA	ACTTCGTCTA	TTTGTCTAGC	TTCAACCAAA
8401	GAACAGATTG	GATCCATCAC	AGCTTTTGTA	ATATCCCATC	AGAAAAGGCA
8451	TAAAAGAGAG	AAGTATCTAC	TTCCAGGTTG	GACTATTAAA	AGCATATTAT
8501	ATAATAATGT	TCAAAATGAT	GGAAATGTAA	TTAATTGAAT	CATTTTTTAA
8551	CGGAGTACAA	TGTACTCATT	CAAAATGAGG	ATATATTTAT	TGACACAGAA
8601	AGATAGAAAA	ATTTTACAAA	AATGTATGTA	AAGTGTGACC	TTGTTCTGT
8651	AAAATATGAA	GTCTAGAACT	TTGTTTATAA	AAATCTTAAC	AGGGATTATA
8701	GAGGGTGAAA	ATCTACATTT	TTCTCTATTC	ATGCATCTAT	TTTTCTAAAA
8751	ATAATCATTT	TTACCTACAG	AATTAAAAAA	TAATAAGAGA	AAAAAGATAA
8801	GTTGTCTTTA	TACTTTCTCA	TCTAGACTTT	CAATACTTCA	GTATGAAAAT
8851	ACATATTTTA	GAAAGAATAA	ATTGTAGTGT	ATGTTTAAAT	GTATCAAAGC
8901	CCTCTCTCAT	CTCTTTTATA	ATTTTTTCCT	CACAGTTACT	TTGTGAGGAG
8951	AGCCAGAAAA	ATATTATTAC	CATTATAATG	TAAATGAGAT	AATTATAACA
9001	TATGATGGAG	GAAATATAAG	GTGGGAGTTA	AGAGATTACA	TTTTTGAGAA
9051	GTTTCAGAGCT	ATGTTAGAAT	CTTGGCTGTA	CAACTTTTTA	GACATCCTAC
9101	CTTGGAAAAC	ATACCTGATG	TCTCCATGTT	TCAATTTATT	AAGTCATAAA
9151	ATGTGATTAT	CTTATAAGTT	TATGGTGAGG	ACTGCACCAT	ATGTACCTAG
9201	AGCAGTGTGT	TCTTATGATG	TTGATAATTG	TTCTTTTAGC	ATAAAGTGTT
9251	GACCTGGCAA	GATTCATAAA	AACTAATCAG	AAAAAGAACT	CAAAATTCTT
9301	ACCTTATTAT	GCATTGCGAA	TGTGTCTATA	ATATTACGGC	TTAGGACTTC
9351	CAGCTCCAGC	AAAATAACCC	TGAGAAAAAT	GAAGAAATCT	GCTGTTTTGA
9401	AGTCCCACTT	AGAGTTCTGG	TTCACTGAAG	TGTACCCGCA	ATTTAAGTGT
9451	GTGCAAAGTA	GGTCAGCAAA	GAAGTGAAGT	TTGAAGTCCA	GTTTACCTA
9501	GTTGCTCCTT	TATATGGGTT	CAGGGTGGTT	GGAGTTTTGC	AGCAGTTACA
9551	TCAAGGTTAA	GAAGAAGCAT	GTTTTGGTCT	ATTAGGTGGT	CTTAGTGAGG

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9601 AACTCATAAG TCTTTCCTAA CTATTGCTAT AACTTCTCAT AGGAGGCTCT  
 9651 GAGGAACTAA ACTCAGGGAA CAATAGAACA GAAATGACAG TTTCATTTTA  
 9701 TTAATAAATG CATTAAATGCC CAGTGCCCTG CTGCATAGGT CTTTAGAAAA  
 9751 AATTGAGTTG GGACATACGA CTTGGGCTTC AGGTTTGTGT GGCATTTCTT  
 9801 AATTCTAAAT CTTGATCTTC CATCTAAGCA AACAAAAGAA AGAAGTGGCA  
 9851 GAAGAGATGG AGGACAACAG ATATGAGCTT ATGAAACAGG AGTGAGCTTA  
 9901 TTTTGGTGTG GTAGGGCTGA GTACCTGGAA GAGTTCCAAA TCTGAATCCT  
 9951 CAAAACCTGT GAATATGTTA TTTTTTATGG CAAAAGGAC TTTGAAGATG  
 10001 TGGTTATGTT AAGCATCTTG AGATAGAAAG GGTATCTTGG ATTATCCAGG  
 10051 TGTACTCAAT GTCATCACAA GGATTCTTAT AAGAAGGAGG CAGAAGAAGT  
 10101 CAAGGTCAGA GGACAAGGCG ATGTGACAAT GTGATAAAGG AAGCGGAGAC  
 10151 TGGAGTGACA CACATTGAAG ATGGAGAAGA GGCCATAAGT CAACAAATAC  
 10201 AGGCAGTCAC TAGAACTCA AAGGCAAGAA AATGGGTTTT CCCCTCAGAG  
 10251 GCTCCAGAAA GAATGCCACC CTTGACTTTA GCCCAGCAAA ACATATTTCA  
 10301 GACTATGACC TCTAGTCACA AGTAATAAGA GAATAAGTGT GTGTTGTTTT  
 10351 AAATCACTAA GTTCTTGGTA GTTTGTACA GCAACAACAA GAAATGAATA  
 10401 CAATTGCCCA CACAGACTTA TGCAGGGAGG AGGTGACAAA AAGATAGAAA  
 10451 GGGATCTGGC CCACCTTATC CTTGGAAGGC AGGTTCCATT TCAGCTTATA  
 10501 CACTTTGCAT CTGGAGAAAA ATGTCGAGAA AGGTTAAGCT TGGTGATTCC  
 10551 ACTCACTGCT AAGTACAACC CAGTTGGTAT TTGGGGATTG TGTGTAGAAA  
 10601 GGGCAGAGTC TACCTGGACG TGGATTCAAG GTTCAGCAGT CTCCCCTTTT  
 10651 TCATACGGGC TTCATCTGTA TCACAGTAAC AATATGGCTT ACATTAACCC  
 10701 AAAGATTAAAG GGAAAGTAGC ACTGCTATAG GCCAGGGCTT TCAGAAATGG  
 10751 GACACCTCAT GAAGCAAAAT CTCCATATTT TACTGGATGC GGACTATATC  
 10801 AAAATTGATG CACACAACCT CATGGGACTT TCTAGATGCA TATTGCTTTT  
 10851 CTGATTATAA AAGCAGTGCC CATGCACTAC TACCTGTGCA TTTACACAGA  
 10901 TTAACCCTGA GTCGCATTTA ATGCTTTTTA TTCTTTCAAG GATAATGGTT  
 10951 GAAATTTTAG TAACAGTGGA GTACAATTAA GAAAAACCTT GTTATCACTC  
 11001 TAACTGGGCA CTGGCATCAA AGAACAGGAG AAATAAAGAA AAAAGTAATT  
 11051 TTTAAAAAAT TTTCTGAAAA TGCAGATTTG ACATGGCTTT TGAAACTTGA  
 11101 GCATTATGCT ATTTCTATTT AAAAGGTGAG ATTTTCCTTT GTGTTTGCAG  
 11151 TCTATATTTT CATCACACTG CAAGTGGCTG AGTCTCTACG GTTCCAAACA  
 11201 ATAGTCTAAC TTGTACCTTT CAAAAACATT CTTAGGAATA ACTTAGAAAT  
 11251 GGGTTGTGAC TCCTCTCCTC ACCGCCAGGG GTGGTCATTA GCTGAACTTA  
 11301 CTGAACATTT GGGGCAGTAG CAAGCACTTT GATGGCAGTA CAACCTGCAT  
 11351 GCAATCTATG GGTGTTTTTG GACAGAAGGC CTCAACTAGA AGCCAAACAG  
 11401 AAGTTGTGTT AATACTCCCC AGATTAAAAA GAAAAGTTTT TGTTTTCGTA  
 11451 AAGTTCAACA TTCAGCATGT CTTTGTCTAA CAGAATCACA ATCTGGCTTA  
 11501 GTTGTGGAGT GCTATTTTTT CAGTCCCAAC CAGACATTCT TAAACAGAGA  
 11551 TTCCTTTAAA CAAATAATTT GCTTCTACAT ATTGTAAATG TAATAATGGG  
 11601 AGCAAATATA TACACAGATC CACACACAGA GAGATGTTAT TGTGTTGCTG  
 11651 ATACAGGAGG AGTTAATTTG AGTCTTTTCA CACATTGTGT TATACACATA  
 11701 AAGAAATGCT TCAATGTGAC CTGAACATGA ATGATAAATC TAGATCCGAA  
 11751 TTTATCTAGT GTGCCCTTAC CTGGCCACAG ACACAGAGAG CCATCTAGTG  
 11801 GTCTCCAAAA TACAGCTTTA GGCTGAAGCA TCCTAGGAAT CCAGTCTCAC  
 11851 AAGACAAGAA AGGATTCCAA GCAGCTATTA CTTCACTTCT GGTCTTTTGA  
 11901 CTGTGGAAAA TGTAGATTAA TTCACCAAAA AGATCTTCTT CTGCCTTCTA  
 11951 CTAAGAAGTT TCATCAACTT CTGCTGTACT GCCAGCCTAT CTATAATTGC  
 12001 AGTTAACAAC TATAAAGTAA GATATCTCAA AATGTGTCCA GTGGGGTTGG  
 12051 GAGAAAAATG AGATAAAGTC TTAATAACTT TAGAAATGTA GAGTCATTAA  
 12101 TTCTTAGTAG CTGTATTTGC TGTCACTTTC ATTCATAAGG AAAGATAAAG  
 12151 AGATGCAGCC ATTTTATTGT GCTAAGCACA TCATTATTTC CTTATTTTCT  
 12201 GATTATAAAA AAATCTATGC TCTTTGTGGA TAATTCTAAG ATTTAATAAA  
 12251 ATGCCAAAGA ATCCAAATCA CCTATAAATA CACAACCAAA AGATCTACTC  
 12301 ATATATGTGT GTTATAAAAT TGGGGCCATC CTACTTTATG GATTTCCTTA  
 12351 ACATATTCAT ACATTATAAA CCGCTTCTCA TATCGCAAAT ATTTTCTCTC  
 12401 ATTATTTGTA ATGGCTAGAT AGTTTGCTT TGAATGGGTT ATTTCTTGGT  
 12451 TTGTTTACCT AGCCCTTGCT GTTTAAATC AGATTGCTT CCATTAAAAA  
 12501 AGAAAAAACA CTGTTACCGA AGGGATTTTA CTACACTCAT CTTAGCATTT  
 12551 TTGTAGTTAC TTGTGCTGCA GAACACCCTC TACTTGAGTT TTGTGACACC  
 12601 GTCATTGTTT TCCTTGTTTT TTTCCCCTGT CCTTTCATTG TCTTTTACTG  
 12651 ATTATGCTTC TTGTCCTTGA TCCCTTATAA TAATCACCAT TGTACTGTGC  
 12701 TGTCTAATAT TATAGCCTCT ACCCAAATAT GGATACTTGA ATTTAAATTA  
 12751 AGATTACATA AAATTTGAGT CAGTTTCTCA AGCACATGAA TCACATTTCA

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12801 AGTGTTTAAA ACATCTTATG TACCCCATAA ATATATATGC CTACTATGTA  
12851 CCCACAAAAA TAAAAAATT TTTAAAAATT TAAATTTAAA TTAAAAATAA  
12901 ATAAATTTTA AAAATATAAA TTTTAAAAAT TTTTAAATAA AATATTTTTT  
12951 TAATTTTAAA TAAAAATTTT TAAATGGGAA CATATGGGTA GTGACTTCTA  
13001 TATTGGACAA CATAGATATA GAACATTTTC ATTTCCATAG GAAGTTCTAT  
13051 TGGATTGTTA TGTCAAAGGA TGTCTGTGTG CAAAGGAAGA GAAACTCCCA  
13101 CCATGAAGCT CAAAAGCAGG GAATTTGTGC TGAAATCTTA CAGGAAAATG  
13151 ACATGAAATA GAAATGCATG AAGTATAGCT GAGCTGTACC ACCAGAAGGT  
13201 GTTTGGGTAG CACCTCTCTT TTTCCCTTGC TCTGGGGCCC AATGGCTCTT  
13251 CTCTCAGTTT CTCACTTCAC ATCTGCTACA AACTCCTCTC GGGATACCAG  
13301 CTGATTCTTC TGCCTTGCCA TAGCTTCTCC ATGGATGTGG TTCTTATGAT  
13351 AGGACTTAGC CTGACTCTAT ATGACTTTAC AACTCTAATC AATTTATCTG  
13401 ACTACATTTT TTATATCTCT TAGTTCAAAT TATCCAGATA TCTGATTGGT  
13451 TTAACCCACA TTGGTTTCCC CTCACCCCAA ATTATATGTC CTCCCTTAAT  
13501 CCAATCAGAA AGGCCCAGAT TCTTAGGTTG CATGCTCAAT ATGAGACTGA  
13551 CTGAAAATAC AGCAGTAAAT AAAATAGCAA AGCCCAGGCT CTCAAAGAAC  
13601 TCCCATTCTA GCAGGAAGA TAGAAAATAA GACATGCAAA CAAATAAATA  
13651 CGTAATATAT TATTATTAGA CAGAGACAAG TGCAATGGAG AAAAATACAG  
13701 CAGAAATATA GATTAGAGAC TGACTACAGA TGGTAAAGTA AGGTCTGTCT  
13751 GACCATGGCA TTTGAGCAGA GAATGAAGTA AGGAGTGACC CATAAAATCT  
13801 TCCAAGGAAG GAGCATTGCA AGCCAGGCCA ACATAAAATA AAAAGACCCT  
13851 GAGATAGGAA TGAGCACAGT AATAAATAAT TGTGAATAA GGGGACTATT  
13901 CTTAGTACTA TCCATAACAC AATTTTtagT GGGCACTGTT TCAAAGGAGG  
13951 TATCAATAGT GAACCAATAA CCAGATCTAG TACACCCTTT CATACAGGCC  
14001 TTTTCCATAG TGTCAACTAC TGAATTTATC TCTTGTGTG TGGCAAGGCC  
14051 AGGAATTTCT AACTTGAAAT TGTGTTATA TCTCCAATTC TCACCTTAAG  
14101 TTAAAAATAC TTAAAGATGT CTTGAAAAAG TGTTTTCTC TTACCTATAA  
14151 CAAGACTTTT CATAACATCT TTGACTTCTC CCTTTCTTG TTACCAGGTT  
14201 CTGTTGCTTT CCTTCATATA TTTCTCATAG CCCCATTTCT CCTTCTTATT  
14251 GTCACATTAC CTTCTTGCA CAATTTCTTT GAATAGCCTT TTAATATCTA  
14301 GCTTCTTTCC ACCAGACCAT TCTGCACACT GCTGCTAGAT AAATTTCTT  
14351 AAAGCAATCT TTTCTTTTTC ATTCAATCAA GAAATACTTA TCAAATATAA  
14401 TGCCCTGAGC TTCATGCCAT TCCCTTGCTC AAAAATCTT TTAATATAAT  
14451 AATATTCCCT TTCTTTTTC ATGACCCAAC ACTTCTGTGG GGTGAAATAC  
14501 ACACCTTAAT AACAATGACT CACTACAGCA TTAATTCACA AAATTGGAGT  
14551 GGGGTGTGCC AACTCAAGA AACTGTATTA AATTATCTAG ATTTTGAGAG  
14601 TATAATTCAA TAAAGCATT CACTCTCTAC TGACATGCCG AGATTGAGC  
14651 ATGTTCCCCA TAAAGCCAGA GAAATATAGG TTAATAATCA TCAGCAAGTT  
14701 ATAGAATCTG GCCCTCAAGG CCATCCACAA ACATGTACTG TATTAGTTCA  
14751 TTTTCACATG CTGATGAAGA CATACCCAAG ACTGGGAAGA AAAGGAGATT  
14801 TAATTGGACT TACAGTTCTA CATGGCTGGG GAGGCTCAG AATCACAGCC  
14851 GGAGGTGAAA GGCCTTCTT ACATGGTGGC AACTAGAGAA AATGAGGAAG  
14901 AAGCAAAAGC GGAAAACCCC TGATAAACTC ATCAGATCTT GTAAGACTCA  
14951 TCTACTATGA CTAGAATAGA ATGGGAAAAC TGGCCCCCAT GATTCAATTA  
15001 CTTCCCTCTG GGTCCCTCCC ACAACACATG GGAATCCAGG CAGATACAAT  
15051 TCAAGTTGAG ATTTGGGTGG AGACACAGCC AAACCATATC ATGTACTCTT  
15101 TCCAATTCAT GGCATTCTGT TGAGATATAG GTACACAGAA AGCACAGAAT  
15151 TTCTTTTGTT TTACTTCTAT TTTAAGTTCA GAGGTACACA CGCAGGTTTG  
15201 TTACATAGGT AAATTTGTGT CACAGGAGTC TGTGTACAG ATTATTTTCT  
15251 CACCCATGTA TTGAGCCTAG TTTTCATTAT TTTTCTGAT CCTCTCCCTC  
15301 CTCCCACTCT TCACCCTCTA GTAGGCTCCA GAGTCTATTG TTCCCTCTA  
15351 TGTTTCCATG AGAAAGCACA AAATTTCTAG AAACAGAAAT GTGTGTATGA  
15401 TTTTAAATC AATACATATA AATCATTATA TTA AAAAGCA TTTTCTATT  
15451 ATATATCTAT ATGGAAGAC GGATATATAC CCAAGTTGTC ACAATTTGCA  
15501 GATGAATTAT GCTCTAATTC AAAATTGATT TTTCCATTGA AACAATGTTA  
15551 TCTGTTCTTG TTAAGACCTC AGGCCAGGCC TCAAAAGCCT ATTTGACCCA  
15601 TTGTATAGCA GAGTTCTGGT ATTAATAATT CTATAGACAC TAAACATCAT  
15651 CTGTAACAGA CTCTTCTGT TTAGACCAA GGGGATATGG AGTCGGGAGG  
15701 AGAACCAGAG ACCTGATTTT AAGTTTGGTT TTAGAATCAT CTGTAGAGCT  
15751 TTGGGAAACT TCTCTGAGCC TCAGTTTATA AATAGTCATT CATTAAACTG  
15801 GTTTTTATTG AGAGCCTACT GTGCCATTTA AAAAATTA TACAGACTTC  
15851 AGTGAATTAA TACACATAAA AGCACTTTAT AAATTCAAAT TTTAAAAATA  
15901 GATGAGAGGC ATTTGTTATTG AAACATCTTC AGGAAAACAT ACTCCTAGCT  
15951 TCAATTTCTG AAAGTTAGGA CCTATCTTCC TTGGTACTAA TTTGGCAACA

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16001	GGAACAACCC	ACCCTTGTTT	CATCCTCCTG	CAATGGACCA	ACACAGTCAA
16051	ACTGTAACCT	CTAAATGGTC	AGCAGCAGCT	GGAAGGGGAG	GAAAAAAGAG
16101	CAGGGTTTCA	TAAT'TCCCAA	ACGGGGACTT	AAAAAGTGTG	TTTATCTTGG
16151	ATGCTCCCAT	GGTCAGGGAG	AAGAACCCAG	GGTGCTCGGG	TGTTACACCTT
16201	AGGCCTGAGG	AGGAAGAAGG	GAAGTTGGGG	AGCCATCAGG	ATAGGAGGAC
16251	TACAGCCAGA	ACACAGATGA	GAATAAGAGA	CAC'TTGGGAA	GTCAAGTATT
16301	AAAGCTAGGA	TTGCTAGTTT	ATATTCATAA	AAATATATTA	GTTAAGATTT
16351	AAGATTGCAT	CAGTTTCTAA	ATAGTACTGG	GTAGTGGGTT	GAAATACTGG
16401	AAATGATCAT	ATCCTATTCA	TAACCTATGA	AGCTTACTTC	ATTCCAACCTC
16451	TGTCTTTAAC	ACTTGCAGGG	CAGCAGCCAC	TTAAAGTCCT	TTGCATCTCC
16501	AGCTTTTCAG	ACTACTTCAG	GATTTAGCCC	TGAGCTCAAG	CCAGGGGAAC
16551	CATTAGGTTT	TCCTTGACAG	ATGAGAGGGG	GAAGTAACCT	TAGGAGAGAT
16601	CAGTAATAAA	TCAGTAAGCT	TAACCATGGC	CATACCATCT	CTGCCTACAG
16651	TATTTCAATG	GCTCCTAACT	GACTTAAGAG	GCCATTGAAA	CACTGAAATT
16701	TAAATGGCCT	CCTAACCCAT	CCTTTACCAC	CTTTTTTTTT	TTTTTTTAA
16751	GATGGAGTCT	CACACTGTTG	CCTGGGCTGG	AGTGCACTGG	TGCAATCTCA
16801	GCTCACTGCA	ACTTCTGCCT	CCCAGGTTCA	AACGATTCTC	CTCTCTCAGC
16851	CTCCTGAGTA	GCTGGAATTA	CAGGCGCATG	CCACCACACC	CGGCGAATTT
16901	TGTCGTATTT	TTATTAGAGA	AGGGGTTTGA	CTATGTTGGC	CAGGCTGGTC
16951	TCAAACCTCT	GACCTTGTGA	TCCGCCCGCT	TCGGCCTCCC	AAAGTGCTGG
17001	GATTTTCAGG	ATGAGCCACT	GCGCCCGGCC	CACCACTTCT	ATTCTCTTGT
17051	CCCAGCTTCT	GTCAGAAAAA	GAATCGGTGT	ACTAACCTGC	TTAAACCCCT
17101	AAATGGCAGC	AGTATGTCCC	AAACTTCAGG	CATTCAAGTA	CTGCCCTCAT
17151	AATTTTGGCC	ATATCTCTGC	ATCATCTACT	GCTATTAATG	TTTTAAATTA
17201	ACTTGTTGTT	TTACCTAAAT	AAATTCACCT	TTAAAAATCT	TTTCATGACA
17251	ACATTAATGA	AATACCAGTA	CCATTGCCA	TAAATAGAAA	TTAACTATAA
17301	AAATAAATAC	ACAATAAAAA	CTAAACAGTT	CTAGCTAGGT	ACCCTTGCCT
17351	GCCTGAGGTC	TGAATCTGAG	TACTTTTTTA	AAAGAGGAAA	TTTCTAGGTG
17401	CTATAAAAGT	GTTAAAGACA	CGCTGACACC	AAACTGAGGC	TTTCTGCTTA
17451	AGTAAACAGA	TGGATTAAAT	GCTAATTGAA	AAGGAATTAA	GTTTCTCACT
17501	ATGTGATTCA	GTGTTATATT	AATGTAAGT	TTCTGAACAA	CCTAAAAATCA
17551	TCTCATGAAT	CACCTACACT	CTGCCAAACA	GTAACCTATA	AGGTGAATTC
17601	TAAGCAGCTT	AGCGTAGCAT	TCAAGACCCT	TCATTATCTG	ATCCTCACAT
17651	CACTCCTCTC	CTCATTTATT	CTTCATACTA	ACACTTGCCC	TTTGTACTTT
17701	GTGCTCCAGT	AATGCCTAAA	TGTGGAATAC	TATTCCAAGC	ATATGCACAT
17751	GTTGTTCTCA	CTGCTTGCCA	TACCATTTTC	CCTTGTTGCT	GCCTGAAATT
17801	CAATCTTCAT	CCTTTGCTCT	TCTGTGCATG	GTACACTGGC	CACTCTCTCC
17851	CTACCATGAT	TGACAACTTT	CACCTCTATG	TGACTTTTCT	ACGGTCATCT
17901	TTCTAGATCT	GTCATACAGT	TATGTAATTA	TTTGTTAACA	TGTGTCTCTC
17951	TCCTCCTCTC	TCACTAGACC	AAACCCTGTG	CTCCTCACAC	AATGTCTGGC
18001	TCATAATAGA	TGCTCAATGA	CTATTGGTTA	AACTGAATTA	ATGGTCCACT
18051	TTCAATTCAT	CTAGTGTAA	TGCTAAATCA	CACCTGTGGA	AAACCCACCA
18101	TATGTCAAGG	TATGGTGATG	GGAACCTAAA	AGAGTGCAAG	GCCCTGTGAA
18151	AGAGGGTCCT	CATTCACTGC	GGTGGACAGA	ACTCCTGACC	ACCTAGAATT
18201	TACCATTGTTA	TAAGATGTAG	AACAAAGCTG	GAAAAGTAAG	GCCTTGGGGA
18251	AATTGATTTT	GTAATAAATA	GAAAACCTGT	TTCTACTACC	CTATTAAACT
18301	TTTCTACTTT	CCTTCATTCT	CCCTAAATCA	TTTCCAATTT	GCCACAGACC
18351	ACAAATGACA	GAAAGTGACA	TTGTTCTCAC	ATCTTTGAAC	CACTGCTTTC
18401	CCAACCTCTC	ATTACCTCT	TCTGCGAATT	TCTCTATATT	TTGTAGCCAA
18451	AGATTCCTGA	CATTTAAAA	TAGAGAAAGT	CAAAGTTGAT	GAAAAGTAAA
18501	TTTACTGGAA	ATAATCATCA	GTGAGAAAGG	AAAAGCCTGG	AACTGTATTT
18551	TACCTTGTTA	TCTCCTGTCA	AACAAAGTAT	CGGGAATCA	GACAAGAGTT
18601	CAGATCTTGG	TAAGATTAGC	CAAGTCTATT	CCTAACTTCC	TGTTTTACTC
18651	ACTGCTCATC	CGTCATTAA	TACGACTCTT	TAGGTTTCAG	CCGCCGGGTG
18701	TGGTAGCCAT	CTGTTTGTTA	GCAGCACCCA	GATAATTTCA	AAATGTAGAT
18751	TCCCAGATTT	ATCAAATCAG	AACTCCTGAG	GTGGGAGCAC	AGAAATCTAT
18801	TTAAAAAGCA	AACAAACAAC	TTACACACAG	ATCTGAGTAT	CATTTGTTTT
18851	TTGTTTTTTG	GACCACATTA	TCCTAAGAGT	GTCAATCCAAC	GTGATTTTCA
18901	AAATGTGACC	AGGAACCAAC	TGGGAAAAAA	AAATCACATT	TGGTAGTTTT
18951	TAAAGTATAG	AATTTTAAAC	TCAGTGAATT	CCACTATATT	ATATGCTATG
19001	ACCTCATATA	TCTGTTTTCT	TTTTAACAAA	CTCCTCCAGA	TTATTCATAT
19051	ATGCACAGTA	CAGTTTGAGA	ATCAATGACC	TGGGGCAGAG	GTCTCCAAC
19101	CAGATGCCTT	CTAGAGGCCA	TGAAGGTAAT	GGAAATGTCC	AAAACAGTCC
19151	CAAATAATAC	AGTAGGGAGT	AGTGATATCG	TATGTCAGTG	AAGAGTGCCT

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19201 GGCCTTTCTA CAGCAGCCAG CCAGCTACTA CTCAGCTGCA ACCAGCTGTT  
 19251 ACTCACAGGG AACATTGCCA GATATTCTGA CTTTTC AAGG GAAGCCAGAC  
 19301 TGGATTTTTT TAATGTAAAA ATCCCCCTAA ATGTTGACAA CTTACTCACT  
 19351 TTTTAAAAAA CAAACTGCAT GCCTGCTAGT GCTGGAGGGT CACCAGTTCA  
 19401 ACACCTTCTG GACTAGGAAA TATCAAGGGA TTTGTAAAGC AGACAAGTAT  
 19451 TAGCCAGAAA CGCCTCACTG CCTGGCTGAG TAATGGAAGA TGGCATAGGA  
 19501 TAGGCCTGTA ATCATAACAA GTACAGTTCC TTTAAGGTAC AGCTAGAAAG  
 19551 AGCTAGAATA AGTATATAAT GTAAAGGACA GGTGGATACC CTCATGTGAA  
 19601 AGCAAGAGAC AAGAAAGAAA AAAGGCTCTA AAAGATAATG AATATAATCC  
 19651 ATTCTATTCA TAACATGCCC ATAAATGAAG TTTAGAAAAC CTTACTCATA  
 19701 AAATAGAAAT AATGAGATAA TGATAACTAC TCATAGTGTT TGAGGTATTA  
 19751 ATTAAGATAG ATAGCTTATA TCAAGTGGAT TAATGACAGC AACTGACATG  
 19801 TAATATGTAT TCAATTTTTT TAAATGTGAG TTCTTTATTT TCTGTTTCCT  
 19851 CAGGCTTCTG TTCCCTCACA CTAAAATTCA AGAGGCACTA AAGAAAAGCA  
 19901 ATCTCATGGC AAAAAGCTAA CACACTTCT TAATTCCAT GTGTGTGTTT  
 19951 AAAAAAAAC TGACATTTCT ATGTGATAAT TAACAGATT GTGATGACAA  
 20001 AGCCATTGAG TCCCTCATT GTCTTTCTCCT CTAATTCTGC TCTTCTTCC  
 20051 ACTCTTTAGT GTTTCCAAAT TCCATGCGAA AAAAGTTGCT AAATAAATGG  
 20101 ACTTGAGAAAT TCTTCTGGAT GATTTGGAAA AAGTGGATAA AGTCTGGGCT  
 20151 ACATTGCTCT AGAAAGATTG CTTTCATTTT ATTGCATTCT TGATATATCT  
 20201 ACTTTTTTAA AATATAATAA TTTGTATATA AAAACAATGT AATGGTGATG  
 20251 TTTAAAAATG TATTTACAAG GCAAAAGATT CACAGTTTCA CCACCTTAAC  
 20301 ATATATTTCC TTCCAATTTT TGTTTTCTG GGAGGTTATT GTTTTCTGTT  
 20351 TTATTTGCCA TTGTAATTCA AGGGTCTATT ACCTGTTTTT GCTCATAGTA  
 20401 ATCACTCAGA TATTTGTAA GGAATGAATG AATGAACTCC TGAAATGTGTC  
 20451 ATGTACAACT GACTTTGTTT TCTACTTGCT CACTTTCATT ATGTCATGAA  
 20501 ACTTTTATGA GTCTCCACAG ACTTCAAATG AATCATATCT CTCTACCTGT  
 20551 TTTGCTGATT TTTTTTCTAA TGATAAAAAT CAAAAAATG TGAAACTTTA  
 20601 GAAAAGAAAT TTTAATCCCA CTATCCAGAG ACAATCACTC TTAATTTGTT  
 20651 GAGATATTTT ATCCTAGCAT TTGTTACATA AAACTTTTTC TTTAAACATG  
 20701 GAGAATTTTG AACCTTAGC CTTAAGATGC TCCCATTTTC AGCCTCCCAA  
 20751 AGTGCTAGGA TTATAGGCAT GAGCCACCAT GCCCAGCCTT AAACATGGAG  
 20801 AATTTCTATT TAGATTATTT CATTTAATAT GGCATTGCCA GTATTTCCCA  
 20851 TGTAATGGGA CGCCCATGGT CCACCCACAC CATTATTTTA TTAACGCTT  
 20901 ATTATTCCAG GCTCTTGAT ATGCATAGAA TGTTACATT TTCTTTTTTT  
 20951 TTTTTTTTTT TTTTACCATT TTTGTACAA AATGTCCCAT GATAAAGGTC  
 21001 TTTATTCACA GGCTCTTATT TCCTTATCAT ACATTCTCTGG AAGAGGAAAA  
 21051 TAATACTAGT TGATTGAAGA ATGTCCAAG ATCCTTTTCA TATTGAGTAT  
 21101 ATGAATGGCA TATTTCCAC ATCCTTATGT ATTCCAGCCT GTCTTTGTTA  
 21151 TTTTCTTAA AAATAAAAGA CAGATTGACA GGGCATAAAA TTCTTTCCCA  
 21201 AATAAACTCA CTTAGATATC ACTTTATGAT CATTGGACAT TTAATGTAGC  
 21251 AGAACTGAGA AGCCCATGAT ATTTACATTT ATCCCTTTGA AGATCACCTT  
 21301 TTTAGTTTTT TTTCTTCCAA AATATTTGAC AGTTTTTCTA AT'AAAAACAT  
 21351 TTTGTGAGAC ATGCTATGA ATAGTTCATT TGCAATTGATT TTGTCAAGAT  
 21401 TAATTTGGGT CCATCAAATT GACATTTTTT TTAATCCAG AAAAAAATTT  
 21451 ATCTTGATGT ATTTTTCACT AGCACTTCTG TTTTGTAAAT GGCTTCTTTC  
 21501 TTAGGGGCAT AATTCTTAGG TTGGGGTCT CTTGTTTATC CCCTATACAT  
 21551 CAGGTGGCCA AATAGTTTAT ATCCAACCAG AAAAAATTGA AAATGAAAAG  
 21601 GGAGAAAGTG TAATAACTAC AGGGGACAAT AGGAATAAAA GAGGAGCTGT  
 21651 CTGAGTTCTA ACTGACACAC ACAGCCACTT TCCCTCTTT TCTCTACTA  
 21701 TTTATAGTTG TTGATCCTTT TGTTCTATAT CCTGTAAGAT TTTCTTAATT  
 21751 TTGTCTTCCA CTTCACTAAT TCAATGTTG CAATATTTGC CAAGCTTTTT  
 21801 ATGTTTCCAA AGCATAATTT GAAATCTATT ATTGGATTTA CTTTTCCTGT  
 21851 TTCTTTCCAT ATCACACTTT CTTTTCATTC CATCCTATTA TTGTCTATCT  
 21901 CAGCATGTTT TCTAGTGAAT TTTTCATGTT TCATAAAAAT CAAATATATCC  
 21951 TGCTTGTTAT GTAAATGTCA GGGTTTTTCT TTTCCAATTT TCTTTTGGCT  
 22001 CTAAAGTAA ATCGTTTTCA TAATGCGTCC TTTATTTTCT TTGCCTTGTT  
 22051 CTACAGCGTT TAGTTTCTTT GCCTTTTCT ATACCATTTG TAAGGGCCCA  
 22101 TGTGCTTCC TTGTTTGTGTT TTTAATTTTT ATTTTTCAGA AACAGGATCT  
 22151 TACTCTGTTG CACAGACTGG AGTGCAAGTGC CACAGTCAGA ATTCACTGAA  
 22201 ACTCCTGGGC TCAAGGGCTA ATTTTTTGTT TTTACTTTTT ATTTTTGTTT  
 22251 TGTAAGAGATG GGGGCTCCAC TCTGTTGCCC AGTCTGGTCT TGAACCTCTG  
 22301 GCATCAAGCA ATCCTCCAC CTCTGCCTCC CAAAGTGCTG GGATTACAGG  
 22351 TGTGAGGCAC CATACCCAGT CTTGGTTTTG GTTTTAATTG GCGGAAGAA

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22401	TTCTTATCT	AAAAACAATA	AGGAACCCAT	CCATACCCCTC	TGTTTACCAA
22451	CCAATAGGCT	ACTTGGACTG	CACCGTCTAA	CTTAGGATTG	ACTTATGTGC
22501	TAGCTAAATC	CCCTTCTAAT	AAATGCAGAT	AGACACTAAG	TTACCAAGCA
22551	CATTGCCTAA	ACCAAATCCC	AGTTGTCAGC	AGCCATCAGG	CATGTGGTGT
22601	GATTCTGGGT	AACCCAAGCT	GGAATTTATT	TATCCTCTGC	TGCAATGCTT
22651	TCTGATACAC	AGTTCCTCTA	CCTAGTCATC	TTTTACTGAA	TACATACCTA
22701	GGCTCTATCC	TAGACTTCCT	GGTTCAAAAT	CTTAGAAGGC	ATCAGCTTGT
22751	GTATGTAACA	AATTTCCCAG	GTGTTTCTGA	TATGCCCTTT	TTGCTGGGAA
22801	TCACTGATCT	GAACCAATCA	AGTACATTTA	AAAATAACAC	AGCTGTCAGT
22851	TCCATGTCTG	CTGGGGTGAA	TGTCTAATTC	TTCTACCTCC	TATGGTGTTC
22901	TTCCCTGTGG	AATTAACCT	CTCCCAAACA	CGTTCTTCTT	GGAGATGCCT
22951	ATATTAAATA	ATAAAATGT	TCATCAGGGC	GGAGAAGTGA	TTGAATGTCA
23001	TTCTGACTGC	CCCAGAAAGC	AGAGCCCATG	CAGTAGAGGA	GCTCTAGTGA
23051	CTTTTCCAAT	TGAACTAAAT	GGCCGAAGGA	AAGGGATGGA	AGTCTTTAAA
23101	GGAATTAAGA	GCCAGAAGAC	CCAGATTACC	TGGGTTTGAA	TCCCATCTCT
23151	GCCAATTACT	AGTGGAAATG	AATGATTAAG	TCACCTAAGC	TCTCTATGCC
23201	TTAGTTTCCT	CATTCACAAA	GATAGGAATC	TTAATCTTAA	TCTTTTCTCA
23251	TCCCATAAGA	TAGAAATAAT	AGGATCTGTC	TCATTGAGTT	TTAATAAGGA
23301	TTAAATGAAA	TAATTTCTAT	GAAGTGTTAA	GAATTGCCTT	GTCCATAATA
23351	AGTGTTCCTA	GGAATATTAG	TTATATCATT	GTTACATGGA	ATAACGATCT
23401	CATATTTTTT	ATTCTGTTTC	CACTAGCTGG	TAGTTTGTGC	AATATCCTTC
23451	TGTTCTAGCA	ATAAGCTGAT	TATTAGTAGA	TGTTTTTAGA	GTGGTGAGCT
23501	TTCATATTTT	TGTGCTTAT	TTGATATTTT	ACTGGGAAGT	TGAGAGGCAC
23551	TTCATCAGAT	CAGTTCCTGC	ATTTTATTGG	AATCTTATGG	ATGAGTTCTA
23601	GAATGGTGAT	CCATCACTGT	AATTTGGGGT	TGAACAAGAA	GTCAGTCATT
23651	TCATTTCCAT	CCAGGCTTTC	CCACCATTTC	CTACTCACTG	CCTTGTCTAC
23701	CTCATTTGTT	CTTCCACTTA	GTTCTGTAAC	TTTGAAGCAG	CTCTGAAGTA
23751	CAGTGAACCC	CATGACCTGG	TTTGAAGCTA	GTGAAGTCCA	GGAAGAATTG
23801	CACTCTGTAG	TTCAAAAGGC	TCTTCTGGGT	GATAGTCATT	AAGAGAGAAA
23851	TTTAGTGCAA	AATCAAGATC	TTTCTAGGTT	TTCCAAGTAA	TTAATTA AAC
23901	CATCAGATAG	TAAGTGATT	GGTGAGACTT	AGTCAGTTAT	TTGAAGAGTG
23951	AAATTTTAAT	GAAAAGAATT	GTTAATTAAAG	TACAACTTG	TCAATTAGGT
24001	AGTTGGAAGG	ATAATAGGAG	AACTTTATGA	TATCGTGAAT	TTAAATTCTC
24051	CAAGCAGTTG	CCATTCATTG	AGCTGAGGAA	AGAACAAGAG	ACTGGAAATA
24101	GAAATATTTA	GAGGCTTAGA	GGGGTAGCCC	CATAAAGCTG	AAATTCAGGC
24151	ATCTGAGGAA	AAGGGGTGTT	GCTCAGCTGG	TGATGGAATC	GTTGAGCTCC
24201	AAGGAGGGAA	CCTAAAGAGC	TCAGGTTTCA	ACCTTTACCC	TGCTGGTTGA
24251	TGGTATCTCC	GAGGGCACGG	AATAAAGTGG	TTCTACAAAT	ATTGAAAAAT
24301	AGCTACTGTC	TCTCATTAATA	GATTTTTTGA	AAGTCGAGAC	TTGGAGCCTT
24351	AATTATCTTA	GCTCTCTAGT	TTCCATTAC	CCACCCCTAC	TCTGTCCAGC
24401	TTTCCAATGC	TCATTTTCGCT	ATCAATTATC	TCCAGTTTTG	AAAGACAGCA
24451	CTAGATTCCG	CCACTGCCCT	GGAAAAGAAC	CACTAACAAG	TTGAAGAAGT
24501	ATTGCTGGGG	TGATGCTTAC	AGGAACCTAG	AGCAGTCAGG	TAACCCACAG
24551	AAAGCAAATC	AAAGACAGAA	AAGACAGACA	AGAAGCAGCA	AACCTTTCT
24601	CTTCCCTCAG	TCTTGCACTC	TCCCCCTAGT	GGCCTCTACT	GGCAAAGCCC
24651	ACCAGAACCA	GAAACGTAAT	GGGTGGAATA	CAGTAGTCTC	CCCTCTTCAA
24701	GGTTTTGCTT	TCCAAGGTTT	CAGTTACCCA	TAGTCAACCG	AAAATAAACA
24751	ATTCTAAGT	TTTCCATTGG	ACGCTATTCT	GAGTATCATG	ATGAAATCTC
24801	CCACCGTCCC	ACCCTGACCT	ATCGGGATGT	GTGAATCATC	CCTTCGGTCA
24851	GTGAATCCGG	GCTGTATGCA	CTACCCGCCT	GTTGGTTATC	AGCATCATCT
24901	GCCCCTGACA	TCCAACCATA	GATGTCATCA	TGGCTCGATG	ATCCAGGATC
24951	TCCCAAGACA	GATGGTCCTC	CTGACATATG	GTCAGAAGTT	CAGTAGTAGC
25001	CTAATGCTCT	GTGACAATGC	CAATGCCATT	CACCTCACTT	CATCTCATCA
25051	CATAGGGATC	TTATCATCTT	ACATTATCAC	AAGAAGGACG	AGGGTGAGTA
25101	CAGTACAGTA	AGATATTTTA	AGAGAGAGAG	GCCACATTCA	CAAAACTTTT
25151	ATTACAGTAT	ATTGTTATAT	TGTCCTATTT	TGTTATTAGT	TATTGTTATT
25201	AATCTCTTCA	ATTAATTTAT	AAATTGAATT	TTATTATATG	TATGTATATG
25251	AGAAAACATA	GCATAACTGC	TCAGAGCTGT	GGAGACTGCA	ATTTTCCAAT
25301	TCATCTGAAC	TAAACAGTCA	AAATCAGACA	ATTCAAACCT	TAGAAGAAAT
25351	CTATTAATGT	GAATGATTTG	CTTTAGCCAT	CTGCTTTGTC	ATTCAGAGTG
25401	CCTAAAACCA	TGTCTGGTTG	CCAGTCAACT	CTGTACCACA	TAATGTTACC
25451	ATAATTGTTT	GGCAAAATTT	CTACCTGGGA	TACCTCATCA	CCAGAGGTTG
25501	ACTTTTCTCA	GTCGTCCCTC	CCTTAGGAAA	GCAACTTGAG	TAACTGATT
25551	ATATAATTTT	GCCATAAATA	GAAATCCCTG	AGTTACAACA	TGAATCCACA

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25601	GAACAGGGTG	GAAATTGGAA	GGTATCAGCC	TATTGCAGAT	CTCTAAACTA
25651	GAGGAGATCT	CCATCCAAAC	ACTAAATTCT	TACCCTTGAA	TATGGACTTG
25701	GGGCATCAGT	CATCTGCCAA	ATCTTAATAT	ATACATTGAT	GCCACTGATG
25751	TCTGCAAAAG	ATTACCAGTA	TTTGCATATA	CTTGACATTG	TCTATACAAC
25801	AAGTGAATTT	TTATGTAAAT	TTGTATGTAT	GCATGAGACT	CAGTAAGAAT
25851	TCTCCAAAAT	AGAAAGATTT	GTTGGAATAC	CAAAATAGCTA	CTATCTGTCA
25901	TTTAAGATTT	TTTGATAGTT	GAGACTTAGA	GCCTTAATTA	TCTTAGCTCC
25951	CCAGTTTCCA	CCCACCATC	TCTACCCTGC	CTAGACTCCC	AGTGATCATT
26001	TACCTATAAT	TACCTCTCCT	GTTCTTAAAG	ACTGAAGTGA	TACTGTCCAT
26051	ACTTCAAAATC	TAATCTCTGT	ATTTTCTTCT	CCCGGACCCC	AAAATCACTG
26101	AGATTACCCC	GGAGTCTCT	AAAACAGGAT	TTCCAGGAAA	AACAATTTAG
26151	AGAATAAGAC	TAAAAGAGAC	CAATTTTATG	TAGAATAGGT	TTACGTTCAA
26201	GGCATCCAAG	CAACACTTTT	TGAAATGTTT	TTTAAGCCAT	CATGTTGATA
26251	GATCATAAAA	TGACATCTAT	CATTCTCTGA	GACTTTCATA	ACTGAAAAAG
26301	GAATAAATGC	AGTGTAGAGT	CAGGCTAGAG	TGTTTCACTT	CCTGGGGGCC
26351	TTGGGTACTT	GTATAATAAT	TTTTAAAAACA	TTTTTGTACT	TGTGTAATAA
26401	AAATAATCAC	TCACCTTGAT	ATGCATTTTA	CAATTTGCAA	AGTAATTTCA
26451	GTCACTTAAC	CTTGCAATTA	CGTAAAAACC	TAAAACACT	TTGAGAGGAA
26501	GGTATTATTTC	TCCCAAATTA	CAAAATGAACA	AACGTAGCGT	TGGGTAATTT
26551	ATTTTACCGA	GCAAGTAAAA	AAATAAAATT	TTCTGATTTT	AAGTCCAGTT
26601	CTCTCTCCTC	TAAATCACTA	CAGATGCAGA	GGTCCTTCTG	AGAACTTAGA
26651	CGGCAGCGTG	AGCTGCTACA	ACATCAACTA	TGGAATTCGT	AGGTCCTAAC
26701	TTCCCTCCTG	ACACATTAAT	AACCAGGCTC	TGCTGCCTCC	ACAAAACCAA
26751	GTGTATTCTA	CCAAAGGTCC	CATAAGCAGA	AAATTGTACT	CTGTTTCAAT
26801	AAATGGTATA	TTTTTTAAAG	CTGCCTTTAG	ATTACCCCTT	TAGCACCTTG
26851	AAACTGTATT	TATTATCATC	TGAAGCTGGT	GACATAGATA	AATAATGAAT
26901	CTTATTCTTT	ACCAGAAAAG	GTCATTTGAA	TTTTCTGAGA	CCTATTTGAC
26951	CTCAAATACA	CATTAAACATA	TTTATCATT	GCTTCCTTTA	TCATGTCCGG
27001	CCTCTAGAAA	TGGGTAAGCA	TCTCATCTTC	CTAGAAAAAT	TCAATTTCAA
27051	AAGAGAAGAA	AAAAAAAACA	AAGAGTTAGA	ATACAGGTTA	TGGCTAGGAA
27101	AATGTGAGCA	GGCTGTTTAA	AGAGTGAGTC	CATTGCCAAG	GGTCATAGGA
27151	ATATTTTGAA	ATTGCCTGTG	TGTTACTATC	ATTTAGAATC	CTTCCAAAG
27201	GTTTCTGAAA	ACATTTACAA	GAGTTAAAGA	TTCAATCTTG	AGCTTTCTAC
27251	TATTGTGTGG	GATTTATAAA	ATATGTCCTA	TGACATATTC	ATATGTTGGA
27301	GGTTTACTGC	GAAATTTTAT	GTGACAGTCT	GCAAAGTTAC	TTTGAGGACT
27351	TTTGATAAAC	ATCTGGGAGA	TGTTAGCATA	GACCTTATAA	TGTGAAAGGT
27401	AGATGCTCAC	TCATCTAGCA	TAAAAATGTC	AGGCTAGCCA	TAGAAACGCA
27451	TAAGACAAAT	CACACTCCA	TTATTCTGA	AGATTATGC	TTTGAACAAA
27501	GATGATTGAA	TTAATTCTGG	ATCTCTTAGC	CAAAATGACC	CATTACCATA
27551	CTTCTATTAT	TTCTATAATA	TAAAACAGGA	ACCCCTATCA	TGGGTAGGGG
27601	GATCATATAC	CGTATTTTCC	TAGACCACAT	TTAATATNNN	NNNNNNNNNN
27651	NNNNNNNNNN	NNNNNNNNNN	NNNNNNNNNN	NNNNNNNNCTG	GAGTCCAGGC
27701	CCAAGCCCCG	GGCCGGCCAT	CTTTTATTTT	TAAAAGACCC	TTTTTCATAC
27751	CTCCCTCCCT	AGGACAGCAG	TAGACCCTTA	GCATGTAATC	AAGTTCTTGA
27801	ATGGCTTCTT	AATCCCAT	CCCCTGTTGA	ATGCTTCCCC	AGTGATGATT
27851	TTTCCCAACG	CTCTGTTTTT	TATCATTACA	AGCTTTCCCT	CAAAAGCTTA
27901	ATTTGGAAAG	ACAAAAAGAC	AAATTCTCAG	AACAAATTTT	AAGAATAAAT
27951	TTTAAGACTC	CATCCTACCT	ACCATCATGA	GTAGCTACAG	TCATAGTTTT
28001	CCTCCTGTAA	ACCTCTGTGG	AGTCCTCACT	TTTTATTCTA	CATGTATCAA
28051	AGTCATTTAA	ATCCTTCAGA	GAGTTTAAAG	TGCAGCATAA	ATTCTATTTT
28101	CTATTACACA	TTTTTTGGTA	CGTAGGGACA	GGCCACACTT	CTTGTTTCA
28151	TACAAGGGCT	TGAGATTTTA	CTGAGAAAGG	CTTCCTCATT	TCTTAATGCA
28201	TATTATTGAA	TGTTTCAGCA	GCTCTTAAAA	GCAATCCAAT	AGTTCCCAA
28251	ATAAACATAG	TTAATTCCAT	CAATATTTAT	TGTGCCCTTA	ACGTATATAA
28301	GACATTGTGC	TAAACATTGT	CAGGATGTCA	GATGCTTGCT	CTTGAGGACA
28351	ACAATTAACA	AATGTATTCA	TTGGAAGACT	ATTTCCACTT	CAATTATATG
28401	ACTGCTAATT	TGTGACTTTT	CAAATAAGTT	TCTCTTCTTC	CATGAAGTTT
28451	GTGAATTCCA	CAAGTAGATA	AAATTGTGAT	ACAAGTTACA	TAAGTGTGTT
28501	TATATGGACA	GATTTCACTT	TTCACAGCAA	GAATCCAGGT	TCAGAAGATA
28551	CAGAAAAGTA	ATCAAGCCTT	TAACATTGCA	CTACACACTT	AGTCTTGATG
28601	TATGTATTGA	AAATTATCTT	TTACTTATTA	GAAGTGTCTT	CCTCAAGGGG
28651	CTGGAAGTTT	AGGAAACTAT	GATGCATCCA	TCTTTCACAT	CATCCTTATA
28701	AAAATACCTG	CATTTTGCTA	AGATTTCCTG	CCATTAATTT	TAAAAAGAAA
28751	CAAAAGTAAT	TTCTTCTCCT	TATTGCGTAT	GAGATCAAAG	TTTAACAAAT

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28801 GAGGTCTTAA TAGCGATACC AAGAAATGGG AAGCCATAAA TGAGACTGCC  
28851 TATATGGCAG TAGACAAGCT TGACAAACT CCTCAACCAA ATGTATGATT  
28901 GTGTTACTTC TGATATTCAC ACCAAGAACC ATCCACCTC TGGTACTCTT  
28951 AGCAAAAATT ATTAGGAAAT CAGTTGTTAG GAATCAATAG TTCCATTAGA  
29001 CAGGAAGCAT AGTTTTCCAA ACTATGGGAA TTTTATCCCA GAACTATGTA  
29051 TCACAGTGAA ATTAAAGGAT TAAGCCTCAT AAGAAAGCAA AAGTACCCTA  
29101 TGTAAAGTC TTTGGCCAAT GCTTCTAAT TCTTCTTTT CATATCTTTA  
29151 AATACAGAAT CCCCTTCACC TACAACTGAG TTTAGAAAAT TCATTAAGTT  
29201 CTGATGCTGA TGTCACGTGC TCAATCCTGA CCATGAACAA CTGGTACAAT  
29251 TTTAGCTTGT TGCTGTGCCA GGAAGACTGG AACATCACCG ACTTCCTCCT  
29301 CCTTACCCAG AATAATTCCA AGTTCCACCT TGGTTCTATC ATCAACATCA  
29351 CCGCTAACCT CCCCTCCACC CAGGACCTCT TGAGCTTCTT ACAGATCCAG  
29401 CTTGAGAGTA TTAAGAACAG CACACCCACA GTGGTGATGT TTGGCTGCGA  
29451 CATGGAAAGT ATCCGGCGGA TTTTCGAAAT TACAACCCAG TTTGGGGTCA  
29501 TGCCCCCTGA ACTTCGTGG GTGCTGGGAG ATTCCAGAA TATGGAGGAA  
29551 CTGAGGACAG AGGGTCTGCC CTTAGGACTC ATTGCTCATG GAAAAACAAC  
29601 ACAGTCTGTC TTTGAGCACT ACGTACAAGA TGCTATGGAG CTGGTCGCAA  
29651 GAGCTGTAGC CACAGCCACC ATGATCCAAC CAGAACTTGC TCTATTCCC  
29701 AGCAGTAGTA ACTGCATGGA GGTGGAAACT ACAAATCTCA CTTCAGGACA  
29751 ATATTTATCA AGGTAGGATG CAAGGTCTCG GTTATATCCC CATTATAGG  
29801 GCCATGACAG AGAGTAAAT TCCCCTATCT GTCCGCTTTG CAGAAATCTT  
29851 GACTCTGAGT AGCTTTAAAC TTTAATAATA TTTCTTAGAG GATTCTGGT  
29901 TATATAGGCT AGTATTTTAT GATCTGCTAT CTGTAATTTG ATCTATAAAC  
29951 TTGTAAGTAC ATGGTATAGT GGGAGTGCTC AATCCTGCCT TTAACCTTG  
30001 GTTTAGCTTC TTAGTAGCTG TTGTGTCTT GGAAAGTTAT TTAAGGCTC  
30051 CAAGCCTCAG TTTTCCAAC AGCAAAATAG AATAATGAAT AGCTTGGTAT  
30101 AGTATAATAA AGATACCATG AAATTTATAT ATGAAAAGTA CCTAATACCA  
30151 TGCTTAGCTT ATAGTAGATG CAAAATAAAT GTTCTTTTC CTACCCACTC  
30201 TTTTCCATAT CAATAAAAT AATCAAGTTT CTCTAAATCT ATACAAAGAA  
30251 AAAATTAGTC AAGCAAGAAA TGGACTTTTC TCCCTCCTCC CTGGCCTTGA  
30301 TGCTTAAAGC AGTATAGAGT AGTAAAGGCA AAGACTCTTG AACTCAAGTT  
30351 GACACCTGCT GAACCTGAAG TTTAGCACTG CCACTTACTA CTTGAGTGAC  
30401 TTAATCAAGT TACTTAACTT CTCTGAGCCT TAATTTCTTT TGTCTATAT  
30451 TCATTTATGT AAAATGGATA TAAGAGTAGA TCCTATTACC CATAGAATCA  
30501 TTGTGATTGA TGATTGATAG ATAGATAGAG ATAATAGATG ATAGATTGGT  
30551 AGTAGACAAA CAGGATACAT TAATAGAACT AAGAGTTCCA TAAGAGTATT  
30601 ATATATATAT AAAATATTAT TTATTTGTTT ATACATTCAT AATTATATTT  
30651 GTTTATTTT AAATTAAATA CATTTTCTGC TCCGGTTCCT CAATATGATT  
30701 CAGAACTAG AACGAAAATG TCCATTTAAA ATAGAGAACA ACACATCATA  
30751 TGGAAATGGT TTTGGTGATT CCCGGGAAAG GGGGAATATC CCTTAAAGGA  
30801 TATTTTATTA GGGCTTAGAC TTTCTTCTGA AAAAGGACCA CCTGTAGTCA  
30851 GAGAGGCCAA GTCAGAAGAT TATTATTCT TCAAAGACGA ATGTTCCCT  
30901 GTAGACTAGG CCCTGTTTTT AGGCCATCCT GGAACAGTGG TATCTGACTA  
30951 TGTTGAGGAC TACAAGGCAA ACTCATAACT TCTTACCTTT AAAAAAGACA  
31001 TGATAATGGG CAACACAGCG AGACTCCGTC TCAAAAAAAA AAAAAA  
31051 AAGACATGAT AAAAGGTCAA GGGGTGCAA TAGTTGTACA TTTAATTTTA  
31101 CATATATATA TATATGTATG TATAAATTGA GCACCTACTA TGTACAAGGC  
31151 AATATGCCAA ATGCCATATG TAAGGGAAAA GTGAAAGACT GAACACAACC  
31201 TGTAAACTCC TTAAAGAATG TTGTTAATAA AATTTTCAA ATATATTTAC  
31251 TACAAATCTA TTAGTAATAA AATTAGATGT TCTATCATCC TCTGAACCTT  
31301 CCCTTTTTC CATATTATAA TTTCCATAAG ATTAAAAATC ATGCATATTT  
31351 TATTTTATAG CCACTCTCCA GATTTAATCT ACTGTTGGCA AGCTCGCACA  
31401 TAATTAAGGT TCAGAATTTT ATCTAAGACA AGAAACATTC TCCTTTACAA  
31451 CAAAAATACA AGCAAAGTTT TGATTTATAA TTTCAAATAG TCATTGTTTT  
31501 GGAAGGACAG TCATAAACAG CAGCCAGGAA AAACCACTTA TGAAACTAC  
31551 ATTGAGTTCC TTAGCATCTT TTTGTCTCAT GTAAAAAGGA GAATGCAAGA  
31601 AAAGTGATTG TGTTTGAATC CTAAAAACGT TTAGAACTA CAGAGAAGAA  
31651 TATTTGTTGA CTTAAGTTGT ATATACCTTA GGGTCTCATT TTACCAAGAT  
31701 CAGACTGATC TTTCTGCTC CTCAAGATTT AATTATATT AAAATTATGT  
31751 TCTTCCTTCC ACAAGGATCC CATGGCATTT TGTATATAAA ATTATATAGT  
31801 GGTACTTGGC CCATTCTATC CTCATTATTT GTCTGTGAAT CTGAGTTCTG  
31851 AGCTAGAATA TAAATTCTGT TAAGTGAGGA CGCTATTATT GAGCCTTATC  
31901 CAATGCCTAG CCTATAGTAG GCACTTAATA GGTATTTATT GAAATTGACA  
31951 TAGAGGCCAG GGGCGGTGGC TCACGCCTGT AATCCAGCA CTTTGGGAGG

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32001	CCCGAGGTGG	GCGGATCACG	AGGTCAAGAG	ATCAGACCAT	CCTGGCCAAC
32051	ATGGTGAAAC	CCCGTCTGCT	CAAAAAAAAA	AAAAAAAAAA	AATTAGCTAA
32101	GCATGCTGGC	ACCGCGACTG	TAGTCCAGC	TACGCGGGAG	GCTGATGCAG
32151	GAGAATCGCT	TGAACCTGGG	AGGCAGAGGT	TGCAGTGAGC	CGAGATCGTG
32201	CCACTGCCT	CCAGCCTGGC	GAGACTCCGT	CACAAAAAAA	AAAAGAAAGA
32251	AAGAAAGAAA	GAAAGAAAAA	GACAGGAAGA	AGGAAAGGAA	GGGGAGGGGA
32301	AGGGAAGGGG	AGGGCAGGGG	ATTGACATAG	AAAGAAAGAA	AAGTAACTTT
32351	CTGTTTTATT	TACATCCTAC	ATTATCTGTT	GCTGTAGAAG	AAATGGATAG
32401	ATGGTAGATA	TTGTCTAAAT	TAAGTACTTT	TTAAATTTAC	ATAAATACTG
32451	GATGATTTCT	GTTTGGTTTT	CTTTCTCTCT	CGCTCTCTCT	CTCTCTCTCT
32501	CTCTCTCTCT	CTCACTGTCT	CTCTCTCTCT	CTCCTTATGG	TGGGATGTTA
32551	GGTTAGTATA	TAACTCTGCT	CCTCGTGGCT	ATTTATTCCA	CAAACTTTGA
32601	AGCTGTAAAA	GAAGATTGTG	AGGTTTGAAG	CCCAGCAGTA	ATTTACACCG
32651	GGTCAGTGAC	AATATTTTCA	TCATGATGAA	TGTGTTTGAG	AAATGAACCC
32701	AAAGAACTTC	AGGAAGTATA	CCTGAGACTT	TTTAAACTCC	TGAGGGATAC
32751	AGGAAAAGAG	AAAGTTTGAA	AAGTATTCAG	GAACAAGTCA	AGGGAATGA
32801	GCAAAACCCA	GGAAGGAGAC	TTTATAATGA	ATAACTGAAA	AGCTGCCTTA
32851	AGCCATAAAA	CATCTGTGGA	TTTTCCATCA	TCCTTATTTA	TTTTGTTTAA
32901	TACAGTCTTT	CAGAAAGTAA	GTTATCTCTA	GTCCATAAGT	CACATCTGCA
32951	TACAGTAATT	TTCTTAATTG	TTCTTAAATT	TTGTAAGGCT	GCCCCACTT
33001	CTTCACTGCA	TAATGAAAGT	CGGGAGGATA	ATGAGCCATG	AATAGTGGAT
33051	GTCAGAGTTA	CGCAAGTTTT	CATTTCTCAC	ACAGTCATTT	TCAGTTTGGG
33101	CTGACAGAAC	TGTTAACATC	TTAAATGTT	AATGAAATCA	CCAAAAACAG
33151	GGCATTTTCA	GCTAGGCTTT	CAGATTAGAA	AAGTCATTTT	TCATGGCAGA
33201	CTACACACAC	ATAATTACAG	GTATTAGAGA	TTTTATTCTT	CCTAGGTCCC
33251	CACATGCCAG	AGCAAATGTC	CATAATAACT	AAATGTAGAC	AAAACATTCA
33301	GGGACCAAGT	TCATAGCATG	ATCTTCAACA	ATCTTCAACA	ATATATTTAC
33351	AAGTTTGTG	TTGTTTGTG	TTTGTTTTG	AGACGGAGTC	TTTCTCTGTC
33401	GCCCAGGCTG	GAGTGCGGTG	GCGCAATCTC	GGCTCACTGC	AAGCTCCGCC
33451	TCCCTGGTTC	ACGCCATTCT	CCTGCCTCAG	CCTCCCAGAT	AGCTGGGACT
33501	ACAGGCGCCC	GCCACCACGC	CTGGCTAATT	TTTTGTATTT	TTAGTAGAGA
33551	CGGGGTTTCA	CCGTGTAGC	CAGGATGGTC	TCGATCTCCT	GACCTCATGA
33601	TCCGCCCGCC	TCGGCCTCCC	GAAGTGCTGG	GATTACAGGC	GTGAGCCACC
33651	ACGCCAGCT	ACAAGTTGTT	TTTTTAAATG	TTAGTTAATT	GGAGCAATTA
33701	TTGGTGAAT	ATTATTTTGA	GAATACCTTT	ATAAGCGCAT	TTGAATGGAT
33751	GTTTTTGCCT	AGCCAATGAC	CATGTGTTGA	ACTATGGTCG	GGTAGACAAA
33801	ATGAAGACTT	GAATTCTGAC	ATTTAGGAGC	TGACAGTCTA	GTGAATGAGG
33851	TCGAAATGTA	AGTAAATGGT	TATAAAACAA	TGGGATGTGT	GATTTATAAG
33901	AATAGGGATA	TATTCAGATA	TACAGAGGGA	AATAATGAAC	TCTTCTCAGA
33951	TATTTGGTGA	TGAGGGAAAA	ACACTGGACT	TGGATCCTGT	AAATGAAAAG
34001	GGGTTTTAGG	TTTGAACAA	ATTCACAGAC	AAAGGAAATG	ACATATGCAA
34051	ATTACCAAG	ACCTGAAAGA	TAAATTTAGT	ATGGCTGGAG	CATTAATTGC
34101	ATATGAAAAG	GATTTGAGAT	GATTCTGGAA	AAGTAGTCAA	CTTGATAACA
34151	TACCACACAG	AGTTTGTATG	CCAAGCTAAG	GCATTTGCAT	TTTATATGCA
34201	GAGCGGATGT	CACTGAATG	GCAGAACATT	AGCCTGACA	TATTTATAAA
34251	AATCATAATC	CTGTAACAAA	TTAACCAAAT	AAAGTAATAC	AGTATAAAAG
34301	CTTTGCAAGT	AATTTTTTTT	AAACATTAGG	ATATAAACAT	TGTTTTTATT
34351	TCTCAAAATT	GCTTTTAGCN	NNNNNNNNNN	NNNNNNNNNN	NNNNNNNNNN
34401	NNNNNNNNNN	NNNNNNNNNG	GATTTATTTG	CCCATGCTTG	CCTAAAGGCC
34451	CTAAGTGCTA	ATAAATTCAT	TGTTCTTGCA	GAGAAAGCTC	CATGGGTTGG
34501	TCATAATCTG	GTCAATCAAC	CTTATCTTTT	CTTTAAGAAT	CCCAAGAGTC
34551	TGGACACTGA	CAGACACATT	GTTGTCTTGG	GCCTAAGCAA	GTCCCTAACC
34601	CTTTGACTAA	TTAGCCATAG	TTCTGATCGT	TTATTCTAGC	TTCTAATTGG
34651	GATGTAGAAT	CCTCCTTTTC	TTCTTTGAAC	AGCTTCTGCA	GTTCTGTTCT
34701	GTATCCCTTG	AGAAATGAAT	CAAGTAGTCA	GTGATTAATT	CGTTCCTTTG
34751	TTACATGTA	TTTGCTGAAA	TTAACTAATA	TAAGGTCAAG	CCCTTGCTCG
34801	GAGACAGAAG	GAATAGAAGG	TAAGAGGCCG	TGCTGTCAGG	AAGCTAGCAA
34851	AGCCCTTCTG	TTCTTCCACC	AGGAGAAGAC	ATGCTCATCT	AATTATTCAT
34901	AGTTTTATCC	ATTTTCTTTG	ACCTGGCTGT	TTGGTTATTA	TTCTTCACTG
34951	GGATAACACC	CTTTATACCA	GTGATTATAC	TCTGCTGGTG	CTAGCATTTT
35001	TAGGCCCTCC	TCCTCAGTTG	ACCCTGAATT	ATGATTCAAC	ACACTAGAGA
35051	CTCTTTTCTC	TTCAAACAT	GTTTATCTTT	ATGCTTACAC	AGTCAAGCAA
35101	TATCAATACT	CACTGGCCTT	TTATTAATAA	TAAATGTTTT	CATTATTGAT
35151	TCTGCATATA	TTCTTAAGAA	CCTATTATGT	GCCAGGCATT	GTGAAGAATT

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35201 AGAAAATCTT CAAAAAATG AATCAAACAA ATGTCCATTC AAAAAACCA  
35251 ACATATAAAT TGATAATCAT CACAATTTAT TCCTGAACAT TAGCAGAGTT  
35301 CCAGAAGAAC TTGAGGCTGA ATGCTATAAT TCTAATTTTG GATATTCTGT  
35351 CCACGTGCAC CATAACTTAG TGGCATTGTG ACCATGTTAA AGTTATTTAA  
35401 ATGTCAATAA CTTTAATTTT CTTAACTATA AGGATACCTG TCTCAAAAAG  
35451 TTAAGTAGTA TGTCTAAGGT CATTCAAGCTA CTACTTTGCA GGGGAAGATT  
35501 TAAACCAGTT TATCTAAATT CATATTCCAG GCTCTTTCAG AATTAGTATA  
35551 AGCCTTCCTT AATTGGGATC CTATTACTTT TTAATTTATA TTCTTTCAGC  
35601 CTGAAGCTAT ACAAATCGCA TCTGCATACA GTAATTTTCT TAATTGTTCT  
35651 TAAATTTTAT AAGCATTCTT GTCCTAAGGA CCTCTACCAA CACAAACTGG  
35701 TTAACCCACG TATTTCAACA TGTACTTAAA AGAAATGCAG TTGCATTAAA  
35751 CATGGAAGCC AGGGTGGGA GGCTGCTTAG CACTAGCTCC CTGGAGTCCC  
35801 GAGAAGAACA CATTGCTTAT GGCTGATCCA GTATACCTAA CTCTTACTCC  
35851 TAGGTAACT TTCTCTGCTA GGGCTACTAA GGTGTTGATA CTTCTAGAAA  
35901 AGACATGTTT GGGTTCATGA ATCTCAGGGA TCAACACTTA AGGTCTGTGT  
35951 GTTCAGATGT TTTCAGTAGG AACCTTGTC AGCCGAATGA TCTGCTGGA  
36001 ATTCTTTGAA ATTACCTCTA CTCCAGGTCA CTTAAGTCAT GCCAAGAGAT  
36051 GAGTCTAAA TTTTCTCTAA GTCCTGCGG GCGGGGTCG GGGGACTCA  
36101 CATAAGGTAC ACTGGAATA GTATATTCCC TCAAGACTCT ATTTTGATGA  
36151 ATACAGCTCA AATTTACTTA ATCTAGGATT CAGCAGATTT TAACTGTGG  
36201 AATATTTCCC AATTAGGAGA GCTTCCAAGC TTTTATGTGC CCGAGAAGGA  
36251 ACTGTATCT TGGTTGACTT TTTCACTTA TATGCATCTA CTGTAAAATC  
36301 TGGAAATCTG CCAAAAAGTA TGAAACTATG CAGAGTAATA CTGAAGCTCT  
36351 ACTCTGATTT TCAGATTTAT CTCTCAAGAC CACTTCAATC TGCATACCCT  
36401 ACAACCTTAA GGATAGATGT TTGACTGGTA AATACTGCAT AATGTCTTAT  
36451 TGCCAGGGCT ATGCCAAGGC AATACTTGAA GGGACATCAA CACCTTGGCT  
36501 AGCACTGGGG CCAGATCCAA AGAGCCAGAA TGAATTGAGT TGTGATGTTT  
36551 CACAGTGTGA CCAGGAACAG TTCAAGGGCT AGGCAGAGAT CATAATTGTA  
36601 TAGAAGAGTC AAGGTTTATA CCAAAAAGCA AAAGGTAAGG ACAATGATAT  
36651 AGGGGTATGG AATAAATCAA ACTGTTTTAG GTAACATATC AGAGAAGAAA  
36701 ACACAGAGAG AAAAAAGTGC CAGCTTGCCA GTTACAACAC ATGGAAGCAA  
36751 GAAAAAGATA GTCCTGAGGG TGTGTGTATG ACTTCTTGAT GTAGCAAGCC  
36801 CCTCATACAC ACCAATAGTA ACACAGCACA AGACATGTAT TAAATTATGA  
36851 CCCCACCACA TAGATTAGTA TTGTTCTCTT CTTGGTGAAA ACTTCAAGAA  
36901 AGGTAGGAGC TCTCCTTCCA CCCTACAGTT TCACCTATAA GTAATTGAAT  
36951 TTTGCAGATA TTGACAAAAC ATAGACCCAA ATGATTCATA TATGTGTACA  
37001 TATATGTTTA ATATATTACT AAATTGCTGT TGACCATTAA CTGATAGAAA  
37051 TATTTTTTAA AAGATGAGCC TTGTATGCAA TTTTAAAAGA TGACATAATC  
37101 AGGGATTATA GCGTGAGGG CCTTCTGTTT TGAGGATGGA AATTAGCAA  
37151 TTTCCAAACC CTATTAAACT CCTTCTCATC AGAGAGGTTT CCCATTGAAC  
37201 TAACTTCAAT TTTTATACT CTCCATTATT CAGGAGGAAA ATGTATTGAA  
37251 AGTTTAAATCC TTCAAACAAT TTGCAAATTA CAAATGCAAA TGTTTCCTGA  
37301 CTTAATGAGC CCCATTCTTC TGGCAAAGTG ATGAAGATCA CTGTAAGAGA  
37351 TACATGTCTG ATTTGAGCAG AAGACATGTG TTTAATTGCA TTTACCCCAA  
37401 AACATTACTG AGCAGTTACC CTGGCCAAGC ACTGTGTTGT GCCTAAGAGT  
37451 CAAAGATGAC TCAGTGAGAT AGGTACTTAG ATAAATGCTG AAGCCTCTTT  
37501 CAGCTTGACA GCCTGCAGTG TTATGAAGCA GAGCAGTGGG GAAGGGAGAA  
37551 CAGCAATTCT GTGGAAGATG CTGCTCTCCA AATCTGGAGT AGGTCCAAAC  
37601 CCATGCCTTT GAGGGCCTTA TAGTCTAAAA AGTCAAAGAT GAGATAAATA  
37651 AACTGCCAAA TTCTTCTACT TTAGGATAGT AAGAGGAGAG TCAAGGAGTC  
37701 ATTTACATG TAAGCTCAAG AAATCACGCA CATTTAATGT TTAATTGGA  
37751 GAACGTCTCC ATATGTGGAG AAGAAAATCA AACAGAATTG GACCACAGGT  
37801 AAGCTCTGTG GCTAAAATGG ACAAATTCAT GTTATCATAA AAGGAAGGCA  
37851 GATACCACAG GGCTCGGCTT TGGTGAAACA AGCCACAAA TGAAAGCTGA  
37901 ACTAGTAACA ACTCGCCATC AAGTACAGAA AGGTTCCCTA GGGCCGTAAG  
37951 AAAAGGGAAA AATGGTAAAA GAGACATAAA AAAATAAAGG GAAGTAAATA  
38001 GATGGATCTC AGAAGGCAGT GGGAAGGGAG CTGGAATGGC GACAAATAGT  
38051 AATTTAACTA ACGATGGTCA AAGAGCTGCT TTAAGACAAG ATCTCCCACT  
38101 AACAAGACAG AATATTGCA TTTCTGCTAT ACAAAAACCA CTAATAAAGAA  
38151 AAGGGGGAGA GGGAGGGAGA GAGAAAAACA AAAAATTCAG AAAAAATAAA  
38201 ATAAAAATAA GAGTATTAAA GAAACAATGA GCCAACTGTA GATTAACCCA  
38251 CATGCCAGAA ACAGTGAGAA TACTGGAGGG AAGGGAGCCA GAGGAAGAGG  
38301 TGTAATAATGA GAATAATTTA GGAAATCAGA GAGTTTAGGG GAAAGCCCTG  
38351 AAAAAATAAG AAATATACAC ATGGAAAAAT ACAAATGTAA ACTATGTATA

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38401 GTAAATAATT CAGATAACTG GAGGTCTATG GACATTGTGA AATATCAAAA  
38451 TTGGCTGTAA GAGTTCGTAA AGACAATCCA AAGAGAGAAT AGCTTAGGGC  
38501 TCTTGAATGA AAAAGAGCAG AAAAAAAAAA AAGACTACGT AAGTGTGAAC  
38551 TTGTGACAAA TGCAAAAGTG TAGAACTCTG GAGAATGTGA GTTTTAAATT  
38601 AGAAGATTCTG TCGTAGATAT GAATCACATT AAGAAAAGAT AGGATTACTG  
38651 AACATCTATG TCAAGTTTCT CTTTCTCACA GAAAAAAAAA AAAGGAAAAG  
38701 GGGAAGGTTT AAGAATATTC CTTTGTCTCA AATGATAAGG ACTTTATTGA  
38751 GCTGGGTTTT CTACTACATG CCAATAGTTG GTAGATCGCA AGCTAAATTA  
38801 AAAGTAACCA AGAAGCAAAT ATTTAAATTC CATGTATAGG AGCAAGTAAT  
38851 CCTGACAAGT AAACCTCAGTA AACCTAACAA GAATTAGGTG ATCCTGGTAG  
38901 GAAGGGAGTT TGAGGGAATG TTAGTAGTAA TAATATTCTT AAAGATTCTT  
38951 AATCAGGCAA AAGCAAAAAA TCAAAATGAA GTTCTCACAG AAAAAAAAAA  
39001 TTGATAGAGC TTTATGCAGC ATGAGTAAAT CCCTCATTC TCGGGGAAA  
39051 TATCAAAATAT GATGAGATGA TCATGGGAAA AGAACTTCAG CTTAGTTTTT  
39101 AAGATATAAG AGAAAGAGGA TATTGATATG TTTAATGATA CAAAGACAGT  
39151 TCCCAGGGGG AAAAAATTAAT TTTAAGGCCT TGTAAGTACAA AATAGATATT  
39201 CACATAGACA GATATGATTA ATGGAAGGCA ATAAATAGGG GGAAAAAGAA  
39251 AAGGTAATAG GGCAATTTAA AAGAAAAAAA AGAGAGGTAG ATATACAAAG  
39301 AGACAAATTG ATGAGTGAAA AATGATTGAA GTAGAAATAA ATATATGGTC  
39351 TATAAATAAC TAGGTCATGA AAGAAGACAC TTGAGGATGG TGATGCATTT  
39401 AAACAACACA AAAGTGATAA TATGTAGACA GAAATGAAGG CTGAAAAACA  
39451 TGGAGTTATT TCAGAGCTAT TTCCACAGCC AGAAAAATA CAAATTCATA  
39501 ATAAACATAA AAACATAATA CTAATAAAAC TTGATGTGTC AAATAAGACA  
39551 AGAAAAATCA GGGGGGCAAC AATTCTTAAA ATCTCTAAGA AAAGGGCAAC  
39601 ATTATTGTGA GTGGAAGATT TTTATTTAAC TTTAGCAAAT TTTAGGCAAG  
39651 TTACAAAAAG TAAAAATAGC ACATGACTAA TGTAAATTAAT ACATTAAGAT  
39701 AATCAATGTA TTAACGCAG TTAACATTTT ACAGAGAATG TACACCCATT  
39751 TTGATTAGCA CATAGAATAT TTACCCAAAA TGACAGTATT TCAGCATCCA  
39801 AAACAGGCTA TAAACTTAAG CAGCAGATTT TTATATGTGA AAAATACAAT  
39851 AAATCAAAGC TCAAACCTTT TAAAATTACA AAAAAAAAAC CCCTCCTATG  
39901 TCAACATTGT GCCAGGTCTA AATCCTACAC GTATTACCTA TTTATCATAT  
39951 GTATTCTGTC TCCTTCAATA GAATATAAGC TGCATAGATT GTGGTCTTAC  
40001 TTCACTACTA CACCCCCAGC ACCTAGGACA GTGCCTGGCA CATAGTGAGT  
40051 ATTGTTGGAAT AAATAGATGA TTGAATGTGT GATGTGTTGC TCATTTTATG  
40101 ATGAATAAAT AAGAAAATAC TTTAATTAGG ATGTCAACAT TTTGCATGCA  
40151 AATATGGCTT CTAAAAATATA TATTAAATAT ATTAATATT GATCTTGCTT  
40201 ATACTGTGAA CTGTCTCAAA AACATTTTCT AAGTAATTTG CAAAGTGCAG  
40251 ATTTTATCTC AGCTGTTATG CAAATTACGT ATTCTTAATT AGTGACATAT  
40301 TGGGAGATTT TAATAAAGAA AAATTCATTA GTAAGCCTCA TTCTTTTAAAG  
40351 GAGAATGGTA TCTTGGGAGG TTTGTTGATA AAAAAGATGA ATACCTGAAC  
40401 TACTTTGTGA AACACTCACT AAACAAGGTT CTCACTCATG GAGTTAGATC  
40451 CACGCCCTTA TCAAACCATG ACAAAGATAT TGTAAGTGGT CTCTTAGTCA  
40501 CCATTTTCTT TTCTTATATG TGCATTTTAC TTGCCTCCAG ACCAATATTA  
40551 ACTAATGTAG ATCTCTGTTA AAGTCATTAT GCTACTCAGT AATCTTCATG  
40601 GTTCCCTTTT TCCTACTAAA ATAAATCCA ATGTCATAAA ACAGGTACAT  
40651 GAGGCCCTCA TAGTCTAGTT TCAACCTGCT TTCCCTATGT TATTTTCTAA  
40701 TATTTTCTTA CCCTGCTCTC CAATCCGATT ATTATGCTTA CTACCTCCTC  
40751 TTACATTTTC CACCTTCTTA CCTTTCTTCA TAACATTCCT GACTCTGGAA  
40801 GATTTGTTTA GAGTTCATAT CCAGGCTGGA GCAGTTATCT GATCAGCACA  
40851 GAGAATGGTA GTATTACTGT TCCCTTTGAT CCAGGCTCTA AATTTTATT  
40901 AAAGGAACTT AAGGTTACTT TTTTATACCC ACATTGCTAT ATGGGCTTAC  
40951 ATTGAGTTTA TATTCAACTA AATACTAACA GGTCTTATTT ATATGACCTT  
41001 CTGTCAAGCT GAGTTCACCA CATTCTTAGT AAAGTTTGCA ACCCTGTACA  
41051 TTTGGCCCCCT TAAATCACTG CTTTCCTTTT TGAAAAACAA ATATCTCTTG  
41101 ATTATACCAT CTCCTCTCCA TTTCTGCTAC TGCCTTAGCC CTTACCACCT  
41151 TAAGCCCTTT ATGAGACTAG CAGAGAGAGA GTAAAGAGAG AAGCGAAAGA  
41201 AAGAAGGAAG AAGCATTGTT CCTCACATGT GGACTTATGT TCAGTCCCCT  
41251 CCTCCTTCCA AACTATGTCC TATATACTA GCAAGGAAAA AAATCATTTG  
41301 AAAATTAAAT CGAATGATCA TGACTCCCCC CAGACAAATT CCCCTCAATG  
41351 CCTCCTTGTT GTCTTCACTG TAGCCTCAGA TCTGATGTAA TTCATTTCTT  
41401 ATCCTCATCT CCCTCCTTAT TTTTCATCTC TTATCGTCAA ACAGCTCACA  
41451 CTCTCTGTCT CTGGCCTTTG TATTTGTATT TCCTTGAGAT GACAACATCA  
41501 TTTCCCAGCT TCTCTTCTG GCTTACTGTA ATTCCTTCTT CAAGACTCAG  
41551 CTCTGGCACT TCCTCCTCTA CGAACTTTT CTTGGCACCC TATAGTAGAA

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41601 TGTGCAGGTG CTCTTGCTCT CTGTTCCAGT GACACCAGAT TTACCTCTAT  
41651 CATGATGCTC ATTATGCGGG TCTGAATTGC CTGCTCACTT TCTCTCTCCC  
41701 CAGAATTAGA CTTTGAGCTT CTTGAGCTCC TTGAGACCAA TGAGTTTGTC  
41751 TTTTCATCCCT GTAACCTCTAG AGTTGGAAGA GTGCCCAGGA GTTTGTCAGT  
41801 TTATGGTGCC AGTAAACTA TTCCTGATTT TTCTCCTTGT TTATCCAAGA  
41851 AGAGTAAAGG GCAAGATAAA AAAGGAATGT GATGGAATTC AATTTAAGCA  
41901 AAATCAGGAT TTCAGCCTTT TGATATTTTA ACTAATTTAG TGAGCATTTA  
41951 TATTTTGCTA TGCATTGTCA TTCCATTAGT ACAGGTGACT ATAATTAAAG  
42001 CTTTCATGAG ATTATTTTGA TTCACCCTTA TCGTAAGACT AAAAATGAAA  
42051 CAGACACAAA TAATCTGTCA TAAATGGTGA TTCTCTGGGA CCCAATTTTT  
42101 TGGAGCCAGT AGTGAAACAA GCATTGGATT TTCTGGGCTG GGAAACTGG  
42151 AGATATTCAG GTCCCTATTG ATTTGCCTTC TTTGGAAAAT GACTGGCTCA  
42201 AAGACAACTG GGCCTTGTC CTCTATCATG GCCATCTTAA ATGTTATTTA  
42251 ATACCAATAA TCAGTAATAG GTTTTACTGG AATGACGGAG TTGTGTAATC  
42301 TCTGGAAATT TTCTGAAGAT TTCTAGTGCC TATTTCTGAT ATGGTTTAAG  
42351 CATATATCTG GTCAAAGCTA GTCTCTCAAG GGTCCATCCA GTTAAGAATC  
42401 TATCATCATT AAGCCTCAAA CATTCTTAAA ATAATGAAGG GTTCCTCTTT  
42451 CCACAACCTC CTCTTTACTT TCCTGATCAG TAAATGACC AGAAGAAATT  
42501 AACCTACTTA CTACTAAGTG TTTATTCTTT ATATCAGCAA GTATGTATAT  
42551 GTGTGTGTTT TAACAAATCT AAAAGTAGAT TTCTTATAAA CAAGTGATC  
42601 AGCTTTCCCT TATAGTACCT AGGTAATTAT CAATTGATTA ATCTGTATAT  
42651 TTTAATGATT TGGCTCCTTC TCTAAAGAAG CAGAAAACCTA CTTCAAAATC  
42701 TAAGATAGCT GAGACTTCAT TACTTGTTGC AAAATAGAAT TTAAGTGGTA  
42751 GAATCCCACT GGGGAGTACT AACATGAATA ATTACCATTA CAAACAATCT  
42801 TCCAAAATGA ACAGTTTCAC TGCAATTGATT GATAGTAGCA TCTTCAAATG  
42851 TGATTTACAT TTATATCTCT AATGAAAATT AGTACGTACT TCACACTTTC  
42901 TGATTTTCT ATGTCCCTTC TGTGGCAACA TAATGTCTTA TTTCTTCTAT  
42951 TTGTATTTGT AAATTATAGA GTAATATTTG TGACAGGCAA TGGGTGAATA  
43001 TGTTTTGCTA AGAGCCTACA CTTACATCAT CTGATTTTTT AAAATACCTA  
43051 CTGCATTCCA CTCTACATTT CAATTTAATT TC'TTTAATT TGAAATGTGT  
43101 CTTGAGTAAC TGCCATGGAT TTATCATAAT GCAATACTTT GTGTTTCCCA  
43151 CTTTAAAAAT TGTATTAAAA TTAGTGAAAA AAGTAACCTG GAGACAGCCT  
43201 TGACTGAAAA AAAC'TTGAAT GACATTAAGT CAGAGTTACC ATATCTGGAA  
43251 TATTTGTTCC ATGTTAGATG TAGCATGTGC TTTACATAAA TTATTTCCAA  
43301 CTCTTGTAAT GAAGGAAGTA TTTTCTCTAT TTTGCTGGTG ACAAACCTAA  
43351 AGCATAGAGT TAAGTAAATT GTTCAAGGGC CATGTTAGCA GGTGCTAGA  
43401 CCAATATTCA AATGGGGGTG GATCTGATGC CAAAGCCTGG GCTTTTATTC  
43451 TAACACAAGG CCACAAGCCA CATTAACTTT TATTATTGCC ATTAATATGC  
43501 CACAAGCTTA TATGTTACCT CTTACTGTCT AATCTTCCCA GACTCAAAAA  
43551 AGACATAGGC TAAGACCAAG CCATATTAGT CTAGTTTTTC TGTCTAGTCC  
43601 ATATCAGAAC ATATACTGTA AGTGCCCTAG TTCACAGGGT TAGGAATCAC  
43651 TATATTATTT AGTTGGTAAT TTTCC'TTTT GTGGCTTCTG GCATAAGCTC  
43701 TCTCTAGAAC CAGGGCCAAT TGTTTCTCTC TAATGACTTG GAGGGAGGCT  
43751 AGCCTGAGGC TATCCTTAAA AGTGCAAGTT GATTATCAT CTTTTCCTTT  
43801 GTTCCATGGA TGAGATCCAA CATGCAGCTT CAACTAGCCT CACGGGGACA  
43851 GATATGTTAA CTGATTTTAT TCCACAAGAA GAAACATTGG TAACAAGATT  
43901 TGGCTATTTT CTAATGTTAT GAATGCAGTG TTTAAGCAAT TATTAAAGTA  
43951 TATGCATACT TTTTAATCTC ATTCCCTGTG CCAAATATCT AGATAGATCG  
44001 ATAGATACAT AGATAAATAG AAGGTGTAGT TACAATTGAA CATAGTCAAC  
44051 AATAGAAATA GGATATGTTA AAGATGCTGA AAACCTCCAT AGCTTGAAAA  
44101 GTTGTGAGAA TATGCAATTA ACAGTTTACA ACAGAAAATG GTTAACACAT  
44151 CTCTTAACTA GGAATTAAAA CATTTGGAGT AAGACTAAGA GTCAAGCACC  
44201 TGGCTAGAAT ATTAGAACCT GAGAGTGAAA TCTCATTTGC TTAGTGCAAT  
44251 AGGACTTTAC TCCTATAATA GAGAATGAGT CCAGCTTATT AACATTGAA  
44301 GAAATTATAG GCACTGTCTT TTTAAATAAA AATTGCAATT TATTTTATT  
44351 AAGACAAGGA AGCAAAGCTG AACACTGCTT CCTATCTTTG GCCTCACTGC  
44401 TTTTCTTACT TTTTGCCTTT GCTCCTCTTT CCCAGGTTTC TAGCCAATAC  
44451 CACTTTTCAGA GGCCTCAGTG GTTCCATTAG AGTAAAAGGT TCCACCATCG  
44501 TCAGTTCAGA AAACAACCTT TTCATCTGGA ATCTTCAACA TGACCCCATG  
44551 GGAAAGCCAA TGTGGACCCG CTTGGGCAGC TGGCAGGGGA GAAAGATTGT  
44601 CATGGACTAT GGAATATGGC CAGAGCAGGC CCAGAGACAC AAAACCCACT  
44651 TCCAACATCC AAGTAAGCTA CACTTGAGAG TGGTTACCCT GATTGAGCAT  
44701 CCTTTTGTCT TCACAAGGGA GGTAGATGAT GAAGGCTTGT GCCCTGCTGG  
44751 CCAACTCTGT CTAGACCCCA TGACTAATGA CTCTCCACA CTGGACAGCC

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44801 TTTT TAGCAG CCTCCATAGC AGTAATGATA CAGTGCCCAT TAAATTCAAG  
44851 AAGTGTGCT ATGGATATTG CATTGATCTG CTGGAAGA TAGCAGAAGA  
44901 CATGAACCTT GACTTCGACC TCTATATTGT AGGGGATGGA AAGTATGGAG  
44951 CCTGGAAAAA TGGGCACTGG ACTGGGCTAG TGGGTGATCT CCTGAGAGGG  
45001 ACTGCCACAC TGGCAGTCAC TTCCTTTAGC ATCAATACTG CACGGAGCCA  
45051 GGTGATAGAT TTCACCAAGC CTTTCTTCTC CACCAGCTTG GGCATCTTAG  
45101 TGAGGACCCG AGATACAGCA GCTCCCATTG GAGCCTTCAT GTGGCCACTC  
45151 CACTGGACAA TGTGGCTGGG GATTTTGTG GCTCTGCACA TCACTGCCGT  
45201 CTTCTCACT CTGTATGAAT GGAAGAGTCC ATTTGGTTTG ACTCCCAAGG  
45251 GGCGAAATAG AAGTAAAGTC TTCTCTTTT CTTCAGCCTT GAACATCTGT  
45301 TATGCCCTCT TGTTTGGCAG AACAGTGGCC ATCAAACCTC CAAAATGTTG  
45351 GACTGGAAG TTTCTAATGA ACCTTTGGG CATTTCCTGT ATGTTTGGC  
45401 TTTCCACATA CACGGCAAAAC TTGGCTGCTG TCATGGTAGG TGAGAAGATC  
45451 TATGAAGAGC TTTCTGGAAT ACATGACCCC AAGGTAATAC TTCATTTTAC  
45501 TTTAGCTTTC TTGATTGTCC ATTATAATTC CATATGTTGT ATCTTCTGCT  
45551 GTAGTATGCT CATGTTCTTC CATCTAACAC AGGAATATTC TCTCAGCCAA  
45601 GTATAGAGAC TAGTCCAAAA GTCTGTTGCC TGGTTAACT AAATATTTCA  
45651 TTGTTTGT TTGTTTGT CATAAATGAA AAAAAAGAC TGAGAAGTTT TGGGGAGTGT  
45701 CTTTCTAGA GTAGTCTTT CTGATAGAAA TATCTATTAA TGCATCTTTT  
45751 CTTGTATTA TTTGACCATC TGATAGCACA CCTATCAGGG AATGGTCTTA  
45801 TAAGGTATTT TCACCCAAAG CACACCTTAA AACTGATGA ATTACTTATC  
45851 TTGGGAATTA ATAAAAATAA ATTGGAAGAT CCATATTTTA AATAGCAAAG  
45901 AATCTTTTTC ATCACTAAAA AGTGATACAA TGGAAAAGAT TAAATTTTAT  
45951 TATAAGCACC AAAGTCAACT GCTAGGGAAC TCACTGAGTG TAGAACAAGG  
46001 AGTATCAGAC TAACTGAGAT GGCAGAATTA GCTAAGGCCT ATAAAGTAAG  
46051 GGGAGCTGCT CAGCTGACTA CCTTGCATAG AAGGGAGAGT GCCAGCAGTC  
46101 CAAGGACATT CAAGAAGATT TTGTCTATCC AGGGTACCCT TGATATCCTA  
46151 GACATCTGAC CCTAAGGGAA GAAGGAAGAG GAAGTGAGA GTGCAGGTAA  
46201 ACAGCCAAAG CAGGTAATAC TTAGGTAAGG ACAGCCATTC CATGTTCTCT  
46251 CTGGATTGAA CCAGGGCCCC TCTAAGTGAG CTGGGGTACA GAAAATTAGT  
46301 CCAGCCCAAT AGGACTAGAG AGAGGGGACT GTCAAGGACC AAGGCAATTA  
46351 GAACAGAGCT CAGGGGAGTA CTGCAGTCTT GATGGGAAAC AGAGTGCAGA  
46401 TCTGAAGCTG CAGTGCATTC CAACATGTAG GATACATTAA GTAGAGATTG  
46451 GAGAAAGGTT CAATTCAGCA GGCACACTCA GGACATACCA TGTCTAAAGC  
46501 AACTTAAGCT AAGCTGAGCC TTTCATATTA TAAACATTC ACAGGCTTTT  
46551 CCAATGCCCC CTTGTACAC CAAGTCTCAA TGTATTGATC TATTTACTAT  
46601 AAGTTACTAT TAAACATTTA AAATTAATTT CATAGACCAT CAACAAGTAG  
46651 GACATTTGTA GCTATCTTTA CTAAATGATA GAATGCCCCA GAGGGCTGGT  
46701 GGCAGCTTTA AAGATTTTTC ATAGATGGTT TCAATTGGAT GTAAGTTCTG  
46751 TTTTGCAACC AAAAGAATGT AAGAAATTTG ACCCATATAT TGCAAACTT  
46801 CTGATAAGTG ACATGAACCT CATGAGAGGA TTCAGCCAAC AATGCCTCAT  
46851 TGACTAGGCA AGAAATTTTG TAACTTCTCA ATGAATACTC AGGGCTTTAT  
46901 GTTAGGAGCT GGAATTCAGT GAACACAAAT AAAATCATTG GCATAAATAA  
46951 ACGCATCACC CTAAAGGGAG ATGTTGGTGA TGCTTCTGCA TTCACATTCT  
47001 GCATCTGGCT CAGCAGCCTT TGTTTATTCT TTGCCCCAGG AGTCCTGTAA  
47051 ATCTTCTGAA GGTTCAGC CTCACTAGAA ACTTAGATTA TTTGTGAGAA  
47101 TCTCAACAAA GTGACTCCTA AATTATTAGC TCAAAATTA AAGTATTTAG  
47151 TCTGATCTAG TAAAAAATAA AATCTAATAT ATGCCTGTTG TGGAGATTTT  
47201 AGGCCATTAT CTTATGTAAA AAGATGAACA CAATACTAAC TAGAGCTTTA  
47251 TTTATCAGAA CGAGTGATTG CCAAAATTA GCCAGGGATG CTATGCATGA  
47301 AAAAGCTCTA AGAGTGATTA TGCTAAAGTA TAAAAATAA AATTATAAAG  
47351 ACAAGCTATA CGCAGCAGTG AAATTATTTT TAAGCAAAAA GAAATAATCA  
47401 TTTCTCTCT GACTCTACCA GAATAAAGAG TGAAATTTT TAATAAGTCT  
47451 AACCAGTCC ACAACACAAA GCCAGCAGAA CTGGACAAAG TCAACTTTGC  
47501 ATTACAACTA GTGAGTTCTT AATGAAATGG GACAAACCTA AATCTAACT  
47551 ATTTTCAATT TGAGATAATA AATGAATTT CACTAAGTTT CCTAAAAATG  
47601 TGCATGTGTG TACTAGCGTT GTTCTACGG TAAATATCT CTTTGTAGG  
47651 TTAATCTCT TCCATAAAAA GACACCAGA TTAATAGCT AAGCAATGCT  
47701 TGACCCCGG ATTTAGGAGG AATAATGTT GTGATAGAAT TTTTAGTTT  
47751 TCATCCAAAT ATGTCATATT ATGTGGACTA CATAATGTCC TCACTCTCAA  
47801 ACAGAGATAC AAGATAAAAA TTATTTCCAC ATCCCTCAGT CACTCAGAAT  
47851 GTACTCTTAT TATACCGTAG TTAATCACAT GAGTGTTTTC TCTCTGTTA  
47901 ATGCTAAATT CCTTGAGGAG GGCCTATACC ATTTCTTATA CTAAATAAGG  
47951 TAGAGCAATT CAGAGGTAAA TGAGTCAAA TGTGTGACTT CAATCAATTA

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48001 GGGAGAAAA GACATAAACA AAAGGAGAAG CAACTTAGAA GGTACAAAT  
 48051 ACGCCAAAGT TTAGCAACAG ATGAAGTACT GTCCAAGTTC AAGGAAAGAA  
 48101 TGATCACCTT CAACTCATTA CAATGGAAGA AAGTTTAATT AATAAGGTAA  
 48151 TATTGTGCCC TATTCTTAAA GAATAGTAAG AATTCAGAAT GTGTGTCCAG  
 48201 GGAGGAGAAA TGGACATCCT AGGAAAAGGG AACCACAATG GAATTGCTTG  
 48251 GGAGGTAATA CTTTATATTA CCTATAGAGA ATACCGATTT TGCTTTATCA  
 48301 CGAACTTCCT ACTTGCTTTC ACTTGCGACC ATGCTTGTGA GCTGCATGCT  
 48351 AATTCTCTGG GTTGTCTGG GCTGATCTGC CTCTTTTTT TCTGTAACCC  
 48401 CTGCAGAAGG TAGGCCTTTG ATTCCTAGTC TCCTGAGAAA ATAGAATTCA  
 48451 AGTATAAAGT GGCTTTGTGG AACTGCTGAT TTTGAGTCCC TGCTCTTCA  
 48501 TTTTCACCTC GTCTCTCCA AACCTTTCCC CAACTCCTGG GCCCCTTTTC  
 48551 AGGGCTTCC TTAACAGAA TTTTCTCCC TATCCCTTTT CCTGGGAAC  
 48601 GATTCTCCCT AGGCTTTAAA AACAGTTGGG CTCCTCTGCG GAATTTACTA  
 48651 GTTGAACCTT TTTGGACTCT GCTCCTGTTT CAAATTTGGG GGTTTACCTA  
 48701 ATGTCAAACA ATTAAATGC CCGTTGCTTA AGCTGGGGCC TTCTTTTGCA  
 48751 ACTACCCGGA GGGAACCAAC CCCTGTTTTT TTAAGTGGCC TAGGGGAAAC  
 48801 CTGGCCTTGG GGGACCCCTG GCCTTGGGGG GNNNNNNNNN NNNNNNNNN  
 48851 NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NAACTGGCCA AAGCCTTGA  
 48901 AGGCCAGGGG GAAGAGCAGG ACGACAAGGG TTAGGAAAAG GAAGGCAGGA  
 48951 GCCAAACATG TTGAACCTT AGAGGCCATG TGAGGAGTTT GGACTTCATC  
 49001 CCCAAGGGCC CATGGGGGGA GCCATTGATG GGCATTAAGC AAGTGAGGGA  
 49051 CATGATCAGA TCTGAATTCT AAAATTCTC TGAGTGGATC AGAAAGGAAG  
 49101 AAAGGGAATA TGTGGATGAC AGAAATGATG GTGACTCAAA TAAGAGCAGT  
 49151 GGCAGTGTTC GCAAAACATC TCCATGTTAG AGTGAGGTCC CTGTCAGGCT  
 49201 AATAAGATGC TTTCTCTCCT GGAGTCTGCT TATTGCTAA TCCTTGAAGG  
 49251 AACTTTCAAT TCTCAGAACC TCAGAACCCT TGCTTCACA GAGCCAATAA  
 49301 GACAGATATG GGAGCTGATG AGCAAATACA ACAGAAAGTC ATGCAAAGGA  
 49351 AAAACACAAA GAGACAGTCC TCCAGCAGAA TTCTGAGCCT GGGTCTGCTG  
 49401 GTTCCCTGAT TCCTTCCATG CTTTGGAAG GAACGATGTG CTGGTGCATT  
 49451 CAGAAAAGAA AATGAGACCC AGAAAAGCAG GATTTCCTTA AAAATCCTGG  
 49501 TCATAGACCA TAAAAGTATT ATCACAACAT AATGTAAAGA ATGTATTTCT  
 49551 GGAAGGAATT CTGTTCTAT ATGAGAGAAA GGTATTTTAA TTAATGATTC  
 49601 TACAGCCCTT TTACCTTAAA GAGAGGGTTT GTTTAGAAAG CTTGAGTTGT  
 49651 AAGCTATACT GTTAGCTTAG TTTGTGCTAA GTGAGATGAC AAAGCTGTCA  
 49701 CCTTCCTCTA AGTTCAAAGA ACAGTTATCA ATTAATTACT CATCAAGTAT  
 49751 TTTCTTGAGC AACTACAAA TGAAAGGCAT TAGAAATACA AGGATAAATT  
 49801 AAAATTAACA TTATTCTTGT TTACATGGAG CTTCAGTTA GTGAAGAAAC  
 49851 TGAGAGTCTA GACGCTAATC ACATGATTAC ATAATTAAAT TTAAACTGC  
 49901 AACTGTGATA GATTCTACAA AAGATAGGTA TATGTACTGT AAGGGCTTAC  
 49951 GAAAAAGAAT CTGGCTTACA CAATAAGTTA GGGAAGTAAT TACTGAACTG  
 50001 AGAGCAGAAG AATGCATATA AGTTAAATGG ATAAAGCAGG ATAGAAAAT  
 50051 AGACTAGATA AAATGAATTA ACTTGACAAA CAGATATAGA CTACCTGCAA  
 50101 GGTGCCAAAG GTCGTGATAG GTAACGTAT TACACAAACA AATGAAAGTT  
 50151 GGTCTGCAAG TTACAGAAA TAGGATGGG TGAAGCTTGT TAATTCCTAG  
 50201 TTGTGAGAAG TTGGTGTAC TTTAACATC CAAGCCTCAG TGTTTAAATC  
 50251 TGCAAAATAA GAAAATAACA TCTATCTTGT AAGATTATTG TGAAAATTTT  
 50301 AAAAGCCCTT AGCTTACCGT CTGGCATACA AGTAGCAAAT CCAGACAGAG  
 50351 GGAGTCAGTA TGATATAGTA TCAGAAAGCA TGTTACACAG TTGTCAAAG  
 50401 CTGAATGTCT TTGATCAGGC TGAATTCCAA TCCCAGGTAC AATTACTAGC  
 50451 TCTGTGACCT TGGACAAATG ACACACTTTC TAATCTTCAG TTTCTTTATG  
 50501 TAAAAAGATG ATAGACATAT CTACCTCACA TTTCTTGGTA GGATCAAAGG  
 50551 AGATAATGCA CGGAAAGGTC AAAGATTACT TAAATAAATA TTTGCCTACA  
 50601 TATTTTATAT GTACAAGCTA CTATATCAGC ACAGATAAAT AAGTAGTTAT  
 50651 GTTTCTCTAT TGTGTGTGTT TTGGGTAGGA GGGTGAAGCT AGACAAGACC  
 50701 AAAGGCTTCA CATAGAAAAT TTTCACCTAG GTCTTTGCCT ACATATTTTA  
 50751 TATGTACAAG ATACTATATC AGCACAGATA AATAAGTAGT TTTTTCATTG  
 50801 TTGTTGTTCT GGGTAGGAGG GTGAAGCTAC ACAAGACAAA AGACTTTACA  
 50851 TAGAAAAAAT TGACCTAGGT CTTGAAAAAT TAATAGATGT TGGACAGACA  
 50901 ATGCTGATAA ATGTGCCTTG CGCAAGCCAT ACGACTGCAA TTTGCTACTA  
 50951 TGAGAACAGC CCCGGGGGTT CAAGGCATAA GGATAATATT TTTAAAAGCC  
 51001 TGGTGAGTTC CTCCTAATAA ACATCATCGC TTCAGTTGTT GTCATGAGCT  
 51051 AGAATGCAAG ATGATGTAGT AGATAATAGC ACATGCTTTG AAATAAGATA  
 51101 GACATGGGTT CTGAGCCAGT CCCTACTACT TACAACTGCA TGACCTTATG  
 51151 CCCATTACTT CACTTCTCTG AGCTTCAGTT TACTCATCCC TAAGAGGAAG

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51201	TAACAACAGT	GCCCTCTTCA	CGAAGCTATT	ATGAGGATTC	AGCACGATAA
51251	TGTATGTAAA	GCTCTAAGTA	TCTTGTTTGG	CGCATAATAA	GTGTTTAATA
51301	AATGTTAAGT	ATTGTTATTA	TTGTTGATGT	GGCATTAAAG	TTATGCTGGC
51351	ATAAAACATT	AGAATTTGTT	CAGTGCATGG	AACAATTACA	TTAAACTTAG
51401	AGCAAGCTAT	ATTACTTACT	TAACAGTGGA	ATACCAAAGA	AATACAATGA
51451	ACAACAGGTT	TTAAGAGTTC	CTATATGGCA	GTGGTTGCAG	GTATTTATCT
51501	TTGTCACCCCT	AGTAACTTTG	AGAACTCTAC	AGAGTAGGCC	TTCAATAAGT
51551	GTTGAATAAA	TGAACGATTT	TGCTGATTTT	AAAAATTTTT	TTTACTTGT
51601	AAACATGGTA	AGTGTTCCTG	CAGATAATCT	GTAAATAAAA	AATACATCTG
51651	TAAATTC AAC	ACCAATGTGT	TTTCTTCCAA	GGTGTGTGTG	CATGTGCGTA
51701	TGTGTGTGTG	TGTATAATAT	ATATGGGAAA	TCATGGCATT	TAAATAAATG
51751	TATACATGTT	TTGTTTGTAT	CATACCATAT	GAAAGCTTTT	TTCCACTTGC
51801	CATATGAGCA	TTTGCCTTGT	TTTATGAAAC	ATACTTTACA	AACATGATTT
51851	ATATGTTGCA	TTACACTCTA	TAAGAATATA	CCATATAATT	TATTTAACTA
51901	TTACCTTATT	GTTACACCTT	TACTGTGTGT	CAAACTAAT	TCATCTTCAA
51951	ATATATGTTA	TTTGTCAACA	TATTCAGTGA	GTTCTTAATC	ATTTTATAGG
52001	TAAACAACCT	AAAAACCTAA	TTATTA AAAA	AAATACTCTG	TATTATCTCC
52051	CTCCTAGATG	AGAACATTTT	ATGAAAACAC	TAAAAATAAA	TTCAATAAAC
52101	AAAATGTAA	ATAGCCTAAA	GGTGGCTAAA	CACAAAAGTG	ATGTAGTCAC
52151	AGCATTAGCG	CAGGTTTATT	GTAATCTCAG	GATGTAAGGT	TTTAACTTGG
52201	CCTTTATGTT	ATTCTAACCA	AGGAGTATCA	TAATCTTTAT	TATGAATGTA
52251	CACCTTGTCT	AATATGCAGT	TTACAATAAT	GAGACTAATT	CTACATGCCA
52301	ATTTGCATGG	CTTCTAAAAG	ATTCTAATAG	GTTCCAATAT	AAAGCAAAAA
52351	AAATTGTTTT	GTATTTTTTG	TTTGTCTGTT	CCATCTGTTT	GCTTCTAAAG
52401	ATAGAGCAAT	TTCTGATGTA	AAAAGCATGT	AGCCATGTCT	GCACATTTCT
52451	ATGTACATGT	TTCTGCCTGT	GGGGGTTAGA	AAAGTTCCGA	ATTATTATTA
52501	AGTTTCAAAG	AATTATGAAA	AAAATGTTAA	AAAACACTTC	TAAGAATAAT
52551	TTTTATTATA	GCCATTCTTT	TTTCTCCCCC	ATAGTTACAT	CATCCTTCCC
52601	AAGGATTCCG	CTTTGGAAC	GTCCGAGAAA	GCAGTGCTGA	AGATTATGTG
52651	AGACAAAGTT	TCCCAGAGAT	GCATGAATAT	ATGAGAAGGT	ACAATGTTCC
52701	AGCCACCCCT	GATGGAGTGG	AGTATCTGAA	GTGAGTGTC	ACCTCTTGGA
52751	TCCAAAGAAA	AATTCTCACT	GAAGAGAAGT	AATTAGCTA	CTGACGCAGT
52801	ATATGTTAGT	TTCTGAAAAT	GACAGATGAA	TATACCCACG	TTGTGTTAAG
52851	TAATACTTTA	CACTGTGTGA	GATCCCAGGA	GATGGTGTGA	AATAGTGTGT
52901	ATTTAATTAT	GTGACCTAGA	TTACTTGTGA	CCTGCATAGT	CTCAAGTTGG
52951	TAGTAGCTTT	GTTCAAAGAG	TCAGTGGGGC	CATTAGCATA	GCAGATGGTG
53001	GAGGAAGTAA	ATGTTGGCTT	TACATCACTT	GAGAATACAA	TGGTGCTGAA
53051	ATAGTCAAAC	ACACAGGGAA	TATGGCCAGA	GGATAAAGTG	TCCCAAGGCA
53101	ACGTTTTTCT	TCCCAGTGAA	TATATCTCTA	AACCCATGGA	ATGCCTCCTC
53151	TTGCCATGAG	GAAATGGAGT	TTATCTTAGA	GATTTCTCTG	AGAAAGGAAA
53201	TAAGATAGAA	GACAATGATT	CCCATGCCTG	CATTCTTCTC	ATCAGAAATTT
53251	ATGAGAAGCA	ATCATGAGAA	ATCACACTGC	CATGGCAGAT	TATCAGAGCC
53301	TGTAATTCAA	TGAAGTTGAA	TACAAAGGCA	GACAGTGCAG	TGATGGGTCT
53351	GTTCGTCTCA	GTCTTCCTGA	GAAAAGGGAA	AGAATGGTTC	CTGAAAAACA
53401	GGAAAGCATG	AGGGTGAGTA	GTCTCTTCCC	TCCTGCTCGA	TGGAATCAAG
53451	ATAATAACAG	ACATCCACAC	CTCCAATTCC	TAGAATTGTG	CAGCATCAGG
53501	AAACTGGTTT	CTCCATGGTC	AGCATCAATA	ATCTCCCCAA	TGGACAGCAG
53551	GATCTGCCAC	CTCAAATTCT	TTTTTAAGAA	AGAATAGAAA	TAAATAAATA
53601	ATTTTCATGGA	ACATAAGGGT	TTTGTCTTTC	TCAACAACTT	TAGAAACATG
53651	CCACTTAAAA	AATTTTATGG	ACTTTTAACT	ATAGCTTAGA	GAAAAAGCCT
53701	TGTTCTCTCA	TATTTGCAAA	ATTATACATG	ATGTGTAAGT	ATTATGAAAT
53751	GCCACTTTTA	ATTTTGCAAG	AACATCAACA	CATTACAGTC	TCTCTCTGAC
53801	ATGAAGTTTA	GAGTCCCTTT	ACCTCCCAGA	TCTTCTGTG	TATTCTCTTC
53851	TTCAGGCGAA	TTTATGGTTG	AGAGAAAGAA	TAAGATGTCA	GGGTAGCAAT
53901	GGCTTCCAGC	TCAATAGAAA	TAGCAGACAA	ACTAGGCTCT	GCTGACAGTG
53951	TGAAAAGGGA	TGAGATGAGC	TACTGTGTC	GTCCCCAGCA	GTTCCACTCC
54001	ACTCAGGGCA	TTACGTATC	TCAGGAGCTT	TACCTGAGAA	GGCCACGTC
54051	CCCAGCACTG	GCCCTGCCCT	AGCCTGAAGG	GAAGCAATCT	TCAGGAAAGC
54101	GGCCACAGAT	GAAGGCCCAA	GACAAGTCAA	TTTTCTTGG	TAATAAACTA
54151	GCAAGTGGCA	GAGTCAGGAC	TAGGACCAGG	TCTCTGGAAT	CCAAGTCTG
54201	CTTCAGACTA	GTCTGGGAAC	GATGATGAAA	GAGTAGGTCC	TTGATGTTTG
54251	CAGAATAGTC	CATGTTCCAG	CAACATCTAT	GTTGCAGTTA	GTATCTGAAA
54301	GCTAGTTAGA	AATGCAGCAA	CTCCAGCCTC	ATCCCAAAC	TACTGCATCA
54351	GAATCTTCAT	TTTAACAAGC	TCCCAGGCA	ATCACTGAT	TGAGGTGAAA

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54401 TTGGCATCTA GGCAGAGCTT ATCATTAATG CCCTCTCACC ACTTCTCTCT  
54451 GGGCCTTAAC TCTCCACTTT CAGCCTAGTC ATTTCTGTG CCCTCAGCCA  
54501 CCACCTCCCG CAACCACAGT CTTTCATGTTA CCTCCCTGGC ATCCAGAGC  
54551 TCTGACCTAG AAGGCACAAC CCCTAGCATT GCCTGTGCAA GGAACCTTTC  
54601 TACATATTGA ACCTGTCCTT TCCCTCTCCC ATCAAAATTC TCCTGGACTT  
54651 AATTCTGCTC TCTCAGGGCC CTGCTTTCTC ATTAACAGTT TTCCAAAAAA  
54701 TTAACCTCTA CTAAAATGCT TATTCCTTTT ATTATGTTAA TATGTGACTG  
54751 GTTTTCTTGT GATGTGTGAT ATGTATTTT AAATAATGCT TAAGAAAAGA  
54801 CAGGGCATGA TTCTATAATA GAAATAACCA TTGGGGGCCC TGTGAACCAC  
54851 AACAGTGATT CAGCCAATCT AGAAGCTACT TGTAAC TGGA TCCCACTTGG  
54901 GCATTTCTCT ACCAGTGACT CAGGGTCCCA ATGGAGTCTG AGAGCTGACT  
54951 CCTTTTCGCC TTTTCACGTA ACTGAAATTT ATCATAGCTA TCTGCACTTT  
55001 GCAGCTTAAA ATCAAGAGTA GTTATTAAAG GAAGGATCCC AGAGACATTA  
55051 GGCTTCATGA ATTACTGGTT TTAaaaaact GAAATGAACC TCATCTTTTT  
55101 TATTGTCATA TTGCTACCAC AAATATTTGT GGAATATTGG CAAGTGATAA  
55151 CTTGTTGCTA CGTAGCTGTC AAGGTACATT ATGGTACTGT GGCAGTCGAA  
55201 CTTTGATTGG AGAAACAGCT TTCAGCTCAA TTTTATTTT ATTGCCAGGA  
55251 TTCCATTAAG ATTCCTTATC AACTTCTAGG AGACAATCCA CATCCCCAAC  
55301 ACTTTCTAAA GCTTCCCAT ACTGTAGAGC TGGGAGATGC TTCATTTTGG  
55351 TTAAGTTAA ATTTGGGCCT CATTGTAACT TAAATCTGAT ACCCCTTTGA  
55401 AAAGGGGATG CATTTTAAAT TGGTTATTTT ACTTATTTGA AGAGTAGGAT  
55451 AAGAAAGCAA CGGTCAATTG TACCAAAAAG GGAAGCTGAC CTGCCAACTA  
55501 TGTGTCATA CATGACCCAG ACAAAAGCCAT TCGTGAAGG ATGTGTTTCC  
55551 TGCCCTGATG AATCTTCTGG GTGTCTAGGG ATATCTTTCT CTTTTGATT  
55601 TTCTATGAAT TCTAGTCATA TTCTCTCTG TTTAGAAGCC AACTGTGTT  
55651 AAATTAGAAC AGCCTCACCA CTGGATCTAA GAGAGGAAGG ACTGAGCCCA  
55701 GAAGGGATAG AAAAGAGTTA TTCTTTTGC AAAGCTGTTT GGACAACTCT  
55751 AAGGGTAGAA AATCCTTTCT TTTTTTCAA ATTAATAAAT ATTTTATTT  
55801 TTAaaaaata AATACCTACA CCTACACAAT AAAAAGGAAC TGAGGTAGTC  
55851 ATCGCATGAG ATAGAAAGAA GTGTAATACA GAGTTCTGGT TCCCAAGAAA  
55901 CTTACACTTT AACTGGGGAG ATAATATAGT GCACAAAATG GTTGCTTTTC  
55951 TGATCTTAC AGAATCCATT CCTCTTTT GGTACAGCA TCCTGCATTT  
56001 CTTCACTCCCT CTTCTACTCT CACTGATTTA TATGAGGTGA ACCCCACCCC  
56051 TGGCTCCAGG TGACACCACC TAGCCAATAA GAATGATAGT CCAGACTTTT  
56101 TAATGATTGC CATTCTAAT GCTGTGAGAT GGTATCTCAT TGTGGTTTTG  
56151 ATTTGCATTA CTAGTCCAAC CATTGTGGAA GTCAGTGTGG CCATTCCTCA  
56201 GGGATCTAGA ACTAGAAATA CCATTGACC CAGCCATCCC ATTACTGGGT  
56251 ATATACCCAA AGAACTATAA ATCATGCTGC TATAAAGACA CATGCACATG  
56301 TATGTTTATT GTGGCACTAT TCACAATAGC AAAGACTTGG AACCAACCCA  
56351 AATGTCCAAC AACGATAGAC TGGATTAAGA AAATGTGGCA CATATACACC  
56401 ATGGAATACT ATGCAGCCAT AAAAAATGAT GAGTTCATGT CCTCTGTAGG  
56451 GACATGGATG AAATTGAAA TCATCATTTCT CAGTAAACTA TCGCAAGGAC  
56501 AAAAAACCAA ACACCACATC TTCTCACTCA TAGGTGGGAA CTGAACAATG  
56551 AGAACACATG GACACAGGAA GGGGAACATC AACTCTGGG GACTGTTGTG  
56601 GGGTGGGGG AGGGGGGAAG GATAGCATTA GGAGATATAC CTAATGCTAA  
56651 ATGACGAGTT AATGGGTGCA GCACACCAGC ATGGCACATG TATACATATG  
56701 TAACTAACCT GCACATTGTG CACATGTACC CTAAAACCTA AAGTATAATA  
56751 ATAATAAAAT AAAAAAATAA AAAAAATTT TAAAAAGGA ATGATAGTCC  
56801 ATTTCCATGG TAACAATATC CAGGGATGGG CTCAGGACAT AGTCACAATA  
56851 AAAGCAAATT AGACTAAGAG CTTTCTGAA ACTGTTCTCT ATAGAAAATC  
56901 CTTTCTTAA TGATGTATG TCTTTCACCT TTCCAAAAG AATTGGGAAG  
56951 TGGCTGAAAA CAAAGAAATC GTTGCATGTA TTTTAGACAG TTATTTCTTT  
57001 TTAaaaCTTC TCCTTCCTTG CCCTCTTGT AGGTGGAAGC TCAGCCTATG  
57051 CTGAGACTCA CCCTTCATCT GAACCTAGTC CCAACACTTA CTAGCTGTGT  
57101 AACCTGTTTT AAGTTACTTC AATCCTCTGA GCCTCAATTT CCTCATCTGT  
57151 TATATCACAG TCATTCTCTGA GTGATAAAAG GTATAGAGAA CAATGAATGC  
57201 AATGCCTAAC AACAAGAGT CCCTCTAACA GTGTAATAAG AATAAACGTT  
57251 CTCTATGCGC TTCCTATTCA ATTCAGAGTG GCTCTGGCTT TACTGATGGA  
57301 TTTAGAGATA ATTAAAGGAG CTGGTAGATA AACTCATTGG AAAGATGTCA  
57351 TGCTGTCTTA TAAGAGTGCC TGTCTCCCT GGTCTGTAGT CTAGACATCA  
57401 GTGAGAAGCC AAGACAGCTA AGTCAGCACC TAGGTAGCTT GTGCGGCCCT  
57451 TAGTGTTCGG GTTCTGTCCC CTAAACAAAA GCCGCTGTC AGCCTTCATG  
57501 CTTCTTCCC ATTAATGAAT CATTTCCTCT TTTCTCTCT GGTCTTAAAT  
57551 ATAGGAATGA TCCAGAGAAA CTAGACGCCT TCATCATGGA CAAAGCCCTT

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57601 CTGGATTATG AAGTGTCAAT AGATGCTGAC TGCAAACCTC TCACTGTGGG  
57651 GAAGCCATTT GCCATAGAAG GTATTAATCA GTCACCTCTG ATTCACTTTT  
57701 ACTCAGGATG TGCTCAGTTT GCCAACCTAG AAAGTCACAA ATGCCAAAGT  
57751 CAGAAGCAAA GAGCTATTCA TCTTCCCTCG TTTTCATTTT CAACTCATAA  
57801 GCACCTAGCT ATTAAGTTGC TGAAGTTAGG AATTTATTTT TCACCTATTG  
57851 AACAAATATT TACTTATCCA ATTTTTAGGG GGAAAAATCA TTGTTACCCA  
57901 TATGATGTTG TTTCAGATAT CTGGGAGTGG TGGCACAGTG TAATAAATTT  
57951 TAATTTAATC TGTATTGTGT GTGTGTGTGT GTGTGTGTGT GTGTGTGTGT  
58001 GTGTGTTTAG TGGCAGGGTG TTGCTATGTG CTATGTTGCC CAAGCTTGTC  
58051 TCCAACCTCT GGCCTCAAGT GATCCTCCTG CCTCAGCCTT CCAAAATTCA  
58101 GGGAAATCTG TATTTTCTAA CAGCCAAATA CTCTAGCAAA TCTGACAGAA  
58151 AAAGTAGCTG GATTACATTT TACAACCTGGG AGGGCCCCAA TATTGATCTA  
58201 ATGCAATCTA CTCNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN  
58251 NNNNNNNNNN NNTGCCTGC CTTTTCATTC ATGGCATATT ACTAAGGATC  
58301 ATCCATATTG TTGCCTCTAG TTCTAGTTCA TATAGTTTGG ATTATGTAAT  
58351 ATTCCATCTG TGCAAATAGT CCACAGTTTC ATTACTCATT CTCTGTCAA  
58401 AGAACATTTG GGTGTTTCC AATTTTGTCT ATTATGAACA GTTCCTCTAA  
58451 GAACATTTT GTACGTATCT CCTGATATGC TTGTGGCGGA GATCTTGGG  
58501 AATGGACTCA GGAACAGAAT TGCTGGTCTT AAAATATGTC AATATTCAAC  
58551 CATATAAAAT AATACCAAAAC TGCTTTCCAA AATGTTTGTG TCAATTTTCA  
58601 GTTTATATTA CAGCAAGCAA TATATAAATA ATCTTATTGA TCCTCATCTT  
58651 CTTTAAACACT TAGTATTACT TCTTATTTAT TTATTTTGG ACAATTTAAG  
58701 TTGATTTTAA TAAGTTCCTG TTTATATTTT AGTTCCTATA CTGTATTGTT  
58751 TATTCACATG GTTTTATTAT ATTATTCAAA AATTAATAAT AAATTTAAAA  
58801 AGTAAGAGAG GGTGATGCAT TAACACCGAT AAGAGAATGT CATCAACCAC  
58851 AGACTAAGAT TAATCTGATT TTGTATATTT AAGGTTTCTG AGAGGGGTTT  
58901 TGGAAGAGGT AGATAGGAAA TCCTAGCCCT GATAAAGACC TCAAAGATTG  
58951 CCTCTAAGGA ATGTCTTAAT GGGAAAGGCA GAAGATCTTA AAATTTTCA  
59001 CTAATGCACT GTGCACAGCC CATTCTCTC CTTTCCAAC TCAATTCATC  
59051 TACTCAGAGA TGCAGCTGAT TTAAGGGTAA TCATGACTAG GAATGTCTTT  
59101 GAGTGCCTTG AAAGAAAGTT GATGAAACT CATCACGCCC TTTTGTGGT  
59151 CTGTGGCAG TATCACACAA ATATGTACTG TGGTGGCAAT CTCTCAGGAA  
59201 GGGTGTAAAA AACTCATCTG AGATTGTATT TTCTCTAGG ATACGCGATT  
59251 GGCTCCAC CCAACTCTCC ATTGACCGCC AACATATCCG AGCTAATCAG  
59301 TCAATACAAG TCACATGGGT TTATGGATAT GCTCCATGAC AAGTGGTACA  
59351 GGGTGGTTCC CTGTGGCAAG AGAAGTTTGG CTGTACGGA GGTATGGAAA  
59401 GACTGTTGAA AATGGTGACA CGTTGTATAG CTGTACCTCA GAGAACATAA  
59451 GGAAATGCTA TTACTTGTGC CTCATCATCT AGGTTATTGC ATTTACTAGA  
59501 CTCTTGCGATA ATATTGGAT TATTTTGTAC TTTGTCCAAA AAGCGTCCAT  
59551 TCCTATAGGA ATTTACAGGG ATGTGGGTTT GTCTTAGATT TAAATGTGAT  
59601 GCTATTTTGA TGAGTAAATA TCTAAATTT TACTTTTCCC CATAACCTCT  
59651 ATCCACAAGT GCAGAAGAAA TGCTGTCTG AATTACAGCA ATAGTATCTG  
59701 AGATTGACAT GAACAGTGTT TGATTTAATC GTTAATTGAT GGACATGATG  
59751 TGTACTTCAA AATATCCTGC AAAATCTAAT CAAAACATTG CTAACCTACC  
59801 AGTGGTTACC ACCTAAAGAT AAAGCCTTTG TGGATGTAGA AAAATAGACA  
59851 TACCTTAGCG AGTACTTCTT AGATTACAGA GTCATGGATT TTTGAAACTG  
59901 AAAACAATCA ATTCCTTCT TTTATAGTTA GGAAAAGAAT ACCCAGAGAT  
59951 AATCAGTGGT TTCCCTAAGG CACACAAATA ATCAGAATCT CTTTCTATTG  
60001 CAGTACACTG ACTTTACAAT GTAATTAGAA AGAAACCTAT AAAATAAGGC  
60051 AGAAATTGGA TGATTTAAAT TGGAGACTGG AAGGTATAAC CAGAGTCACA  
60101 GGCTCAGATA TTTAAAAGAG GAGCCAAATA TACCTGAACA AGGTCAGCCT  
60151 GACAATTTAA AAAAAAACA AACCACCTA AAGTGAATAA TAATGGTTTC  
60201 AAGTAGTCTC TATTTGCCAA GAACTCCCAA AGTTGTATTT CAACACAGAC  
60251 CTTTCTTCTG AGCTCCAGGC CATGTATCCA CTTTCTATT TGACATCTCC  
60301 ACTTGAATAT TCTCCAGGCA TCTGAAATTT AAGTTGTCAA AAGCTGAACC  
60351 TTGATCTTCC CTCCTAAATC TATTTTTCCT CCTGTGCCCT ACATCTGGT  
60401 AATGGCTCCT CTGGCCATCT AGTTACTCAT TCTGGAAACT GGCAAGGATC  
60451 CTTAATGCCT CCCACATCT ATCTTCCACA TTCATCAACA AGCCATGTCT  
60501 TTTCTTCTA TAAATATGCT CTCGAATATG CCCATTATT GTCATCTCCA  
60551 CTGTTGTGAC TCGAGTCCAA GCCATCATTC TTCACCTGGA CCACTATAAA  
60601 AGTCTCTTAA CTAGTTCTCT GCTATCACTC CTGCCTCTC AAATTTGTTT  
60651 TCCATGTGGC AGATCATCT TCTGCTTAGA AGCCTGCAGT GGCCTCCCAT  
60701 GTTAATGGGA CAAAAATCTG AAACATTGGC ATAGCCACAA ATGCCCTGTG  
60751 GGACCTGGCC CTGCCACCT CCCAGCCTCA TCCAGCCAC TTTCTCTTTG

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60801 GCTTCCTGCA CAAGCTGGTG CCTCCTCTTC CTCAAAATC CATCCTCTGA  
60851 CACTTGCTAA GTGAATCCTT ATATTATAAA CTTCCACTGA AAACCTCCCTT  
60901 TTTTAAACCT GGTAATCCAA CCAAATGAAT ATATTCNNNN NNNNNNNNNN  
60951 NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNGTGC AAAAATCTCT  
61001 GGCCTTCCCT GAGGACAGTC AGGGTGGGTC TCTGTCGATT TTTGTTAAGA  
61051 ACCGTTCTAA TTA AAAAGAG TTCTAAGCAA TGCTCCATTA GTAATAAATA  
61101 ATAGCAAGTC ACAAGGAACC CAGGTCTTAG TCGCATTAGA TTGCTAGTGG  
61151 GCCTTGTTTC TCTCTCACTG CATATCTTTG TCCATGTGTG CCATTATACC  
61201 AAAATACCCG AGACTGGGTA CTTTATAAAG AAGAGAAGTG TATTCCTCCAC  
61251 AGTTCTGGAG GCTGGAAGTT CAAGATCAAA GCACCACCAA GTTTATTGTC  
61301 TTAGTAAGGG CCCAGTCTCT GCTTCCAAGA TGGCATCTTG TTGCTTGTCC  
61351 TCCACAGGGG ACAAATGATG TGTCTCCCA TGGTGAAAGG CTGGAAGGGC  
61401 AACAAAAGGG ACTAGCTAGC TTCCTCAAGC CCTTTTATAA GGGCACTCAT  
61451 CCCTTCATAA GGGCTCTTAA TACCAACCCT TGGAGTTTAG GTTTAAACAT  
61501 ATGAGTTTGA GAGGGACATA TACATTCAAA CTATGGCACT ATTCATGCCT  
61551 TGTATACCTT TCCTTCAGCC ACAGCAGTCA GTTTCACAAC ACTATACCAC  
61601 TGTCCAGGAA AGTCATGTCT TTTTTCCTTT GTTTATGCTA CCCTCAGGTT  
61651 AGTATGTTCA CTTTCCCTCC CCAACCTCCC CATCCTGCCT GTCTTATTCA  
61701 AATGTTTATCT CATGAACCAG CTTCCCCACA AATCCCAGGA AGCATGGATC  
61751 AAATGTATCA TGGAGGTATA TGTGTTGTTT CTCCCTAGAC TCAAGCTGTT  
61801 TAAAAGGAAA GATATAACTT CTTTCTATCT CTATCCCATG ATACGCAGAA  
61851 GAGTGCCTGG CACCTAGTAT TAACTCAATA TATTATGTAT TTTTACTTCT  
61901 ACGGGATTGA CTCTTGTCAT TGATGTCAAT GGCTAAATAA TGGCTGTTTT  
61951 AGAGTACATG TGAGGGTTTT CTTAATCTAC ACAAATCACT TAGCAAAGTG  
62001 CTGGCCACAG ATATTTATTG TAACTACTAT TGTGCTATA ACTGCTGCTG  
62051 TTTTGGTATA TAGCAGTAGA GCAGAAAGAG CCCAGGCTTT GGAGCTGAAC  
62101 AGAAATGGAC TGAAAGACCA ACTTTGCCAC TTA AAAAGTTG CAGTAACTCC  
62151 ACTTTCCTTA GTTATAAAAT AGACGTTATA TATCTATTTT AATGTAAAAC  
62201 ACTTGGCAGA AAGTAAGCAA CCAATAAATA TCATTAAGTT CCTTCTCTTT  
62251 CTCTTCTATG CCTTTTGTG GGCTTGCTC GGTTTACTAC ACTTCTCTGG  
62301 TCTCACTTTC CTCCTCTGTA AATGAAGTAG ATGATTCCA TGTTCCTAC  
62351 GAGATCAAAA TTCCAAAGTT ACTGAAGTCA CCATCTTTT CCCCTTAAAT  
62401 CTACTCATTC TCTTCCCTGA GGGACGTTCT TTCCTTGACA GCTACCAGGT  
62451 ATATTAAATT GTTCAATTC TCTATCTCTA TCTCTCTCAA TCTCTAAGAG  
62501 ACCATAAGGT GGTCCAGACC CAGGGCCTTG GCACAACTCC AGGGGCCATT  
62551 TGCACAGTGG ATTAACATAC GAATAGCGCC TGTCAACTGA AGAATCATGA  
62601 GCTTCATAAA TTTGGCCAGG AGATCTTTAG TTCTCATAAA GGGTTGCAGC  
62651 CAGCAGGCCA GCCATCCTGC AGAATGGGAA GCATAGCCTC AGCAGAAGCT  
62701 GAGAGCAAGC ACTTCAAGGG AGGGGTAAAA GGGAAACAGGA ATTTATGCTG  
62751 AGTGGGGTGG CTGAGTATAC GTATTGAGTA AGCTATAGGA GGAGTCATAA  
62801 ATATTTATGA AAAGAGATAC ATGCACATGT GCAGTTGAGC TTCATGCCTC  
62851 TTCTGGGCC CATGTTCAAA AAATGGTGGT GTTAGCATGA CCCGAGGGTG  
62901 GAGATTTTGG TCTTCTGATG TCCAAATGTG AAGCAGAGGA CATGAAAACC  
62951 CTCACATGCA ATCCCCACA AGTTGGCCAA AACCATCTGG AGATTGTGGT  
63001 CATTTTTATG GAAGGTGCA TTGGGAAACT GGTGAGCTGT CACACTGAAA  
63051 CTGCAAAGAG GGAGGGAGAA TCTGGTTATG GCCTTAGATG ATTAGCTAAA  
63101 GGTGATAAAG CAATGAGTTA TCGGTTTCTT GTTTTCCAGA GCTAGCTTTT  
63151 GCTTACTTCT TAAGAATGAA TTATGGCTAA AGGTTAATAA GGAAGGGACA  
63201 ACTGAGGCAT GACAGACCTC CCATCCAATC AAGGCCAGGA ACTCAGTTTT  
63251 TAAGGTTTCT TCGGGGTCCC CATGGACAAG AGAAAGTTCTG TTCAGTCGGT  
63301 TGGAGAGCTT TTAATTTTAT TTTTATTCT CACCCTCTAG GCATTGGGTG  
63351 CTCCTCGGCA GCCCTCAGTC CAACCCTGGC TGAATTTCTT TCATGATGTA  
63401 TAATGAAGGT CACAGAACAC ACAGGGAGAA ATAGTCTCCA GCTGTCCTTA  
63451 AGTCCAGAAA AAATGAATAT CCATCTGAAA ACCAAAGAGT ACACAAGCAT  
63501 TGGGCCAGGT ATATCATGTG ATTCATGGCC TTTTCTTTCC TATTCTGTCA  
63551 CAGACTTTGC AAATGGGCAT CAAACACTTC TCTGGGCTCT TTGTGCTGCT  
63601 GTGCATTGGA TTTGGTCTGT CCATTTTGAC CACCATTGGT GAGCACATAG  
63651 TATACAGGCT GCTGCTACCA CGAATCAAAA ACAAATCCAA GCTGCAATAC  
63701 TGGCTCCACA CCAGCCAGGT GAGTGCCACA GGTGTCTTGC TCCAATATTC  
63751 TTAACTGTGA CAATTCCTAG GGATGGGAGG ATCCAGAGCC CTATGTCAGA  
63801 CTACTAAGTT ATGTTACCAC AATAACGAGG GTGGGGTAGG CACTCTCATT  
63851 AGAGCAGAAG GAATTCTCTC TATCCCATTA ATTCACTTTT CCCTTAAATT  
63901 AAGGCATCCC ACAGTGCTCC TTCCTTTCCT ATAACCCTCC ACTGTTGTTC  
63951 ATAATAGAAG AAATAGAAGT TTTTAAACCA GGTTTCACTT AATAGTGACA

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64001	GTCTGAAAAG	ATGGTGTGAA	AGATTATTTT	CCTAGGTTCT	TTTCTTGCCA
64051	AAATTGAAAC	CTATTACGTG	AGTTTAAAGT	CCCTGGTCCC	CTTTAAGTGA
64101	CCCCACTTGC	CCCTGTTCTC	TCTGCTTTTT	CCCTGGTCCA	GAGGGGTTTG
64151	AGACCCATTG	GGGCCAAGGC	CAAGCTTCAC	AAGGCCGCAG	TTCTCTCCTG
64201	TTACCTAGAC	ATCAACGCAC	TGATTACAG	GGAGAACTGA	AACTGTCAAG
64251	CAGACTGGTG	ACTCAAGCAC	ACTCGTTTGC	ATATCTCTCC	CTGAATGAAA
64301	TTGGCATGGA	GACCCAAAAT	ATAGTCAGAA	GGCTTCATAA	TGATGGAAGA
64351	ACTCTAACAA	AGGGAGTGGT	TTCACTTGAC	CACAGCAAGG	CTGGATGAGC
64401	CATCCTGGCC	TCTCCTGTGG	TGAGACCACC	TCCTGCCCTC	CAGTGTACCA
64451	TGGATTACCT	CCCAGCAGGG	AGGCTGTCAC	TTCTGCATTT	ACCTTATTCA
64501	TGTATTCATA	TACCCTCATA	CTAAACTCCT	CACTTTGGTA	ACACTTTTTT
64551	TTTTTCTAGA	TAGGTTACTA	TCATTGGTTT	GGTTACAGTT	GAACCTGTGT
64601	CTTTCCTAGT	TTATCCTGGG	AAGTATTTGG	TCTTCTAGGA	GAACCTCCACA
64651	GATCTTCCTT	ATTGTATGCT	AATATGATTA	ACTTAATTCT	CAAGAGTCCT
64701	CCTTCCCTTC	TTTGTTTTGG	TTGTCAATTA	ATTATATACT	TTTTACTCAT
64751	CTTTAGCAAT	TATGGAAGGC	CTTTTGCTAC	ACATTAGTTA	TGATGTGCCC
64801	TCCTTATATC	ACATAACGTT	TTATAATACT	GAGCTTTCCA	TCAGAACACT
64851	TTTTTGTTC	TCCAGGTGGA	ATAATAACCT	CTAATTAGAA	TTTTTGTTC
64901	GTTGAGATTT	GAGGCTGAAT	GTTGATCTAT	TTTTAGGCAT	TTCTGGAATT
64951	TGTTTAAAGA	GGCCAAGGTT	TGTAACGACT	ACATATACTG	TTACATCTCA
65001	AGTGGTTCTT	TGTTCCCTGA	CCTATGTGTT	TCTCATAATT	TCTACCTGTG
65051	AATCTGTTTT	CTCCATCAGA	GATTACACAG	AGCAATAAAT	ACATCATTTA
65101	TAGAGGAAAA	GCAGCAGCAT	TTCAAGACCA	AACGTGTGGA	AAAGAGGTAA
65151	GAAGGGGCCA	ATGGCAACTG	TCTTTATATT	TGTAAAATAA	TCTTTAGAGA
65201	TCTAACTGTA	TAATTATTCA	GATCAAATCA	GGGCAATTTA	TCAAAAGAAT
65251	CAGTATAAAT	AGAGGGAAAT	AAAACATAAA	ATAAAAAATG	TATATGGACA
65301	CTAAAATGCA	GTGTACACAA	TATACTGTCA	TGGTTAGAAG	TGTAGTCATG
65351	GACTCTAGGA	TCAACCCTCT	GGATCCAAAT	CCTGTCTCCA	AGACTTATGA
65401	TATGTGTAC	TTTGTGTAAG	TCACTTATTT	AATCTCTCTG	CACCTCAAGT
65451	TCCTCATTTG	TAAAGTAGAG	ATAAAAAACAG	TACCTATTTT	CTAGAGTTGT
65501	TGTAAGATTT	AAATAAGATC	ATACATGTAC	ATCTCTGAAT	GAAAGGAAAT
65551	GCCTAATAAA	TATTAGCTAT	TATTATGTAC	AAAATACATG	TAAGAATTAA
65601	TGAATACCGC	AGGCAATTAA	TTCCATGTTT	TACTGTCTTT	TTGCGATATT
65651	TCCACTCCCT	ACTCCTTTCT	AGCATTCCTA	GGAACAGAGT	ATTGGAAATA
65701	TGAAACAGAC	ATGTCATGCC	TAATTCATTT	CCTGGCACTT	TTCTACAAAC
65751	TCCCTAGCAA	AGAGCATCTT	ATTAATAGGA	AATAACAAAC	ATTAAATGCA
65801	TTAATGACAT	CTGAAAATCG	AAGCTCTTCA	CTCTCACCAC	ACCAGGCTGT
65851	GGATGACTGT	TCCCTATTTT	ATGGTGACTA	AAGATGTCAG	AAGCACTTGG
65901	GTCTGGTTCC	TGGCTAGTCT	CTGCTGCCTG	CTGCCTAAGG	CAACCTACT
65951	GATTCTTTTG	TACACCCAGA	GGCCTCAGAT	GAGGGCACAC	CTCTCATCAT
66001	AACAGAAGAA	AAAGGGATGG	AAAACAGGAT	TCTTTTGTGT	TGTATCTTTT
66051	CTGGGACTGC	TGCAGTCCCC	TTCTATGCAG	TCTCCATCTA	GCTTGTGGA
66101	ATCATTTTCT	TTATCTCTTG	AAGTATCTCT	TTCCAGTCAA	TGAGCACTCT
66151	CCCCTCCCCT	CTCAGTCTGT	GGTATTCCTG	CATCATATTG	CAAGTGTGTT
66201	AGTGACAAGC	TGTATACTAG	TCCAGTCACA	GCTGTTCCTA	GACATGTTAC
66251	ATCTATTTTT	TCTATTTTTA	ACATAAAATT	TTAATAACAG	TAACACAAGA
66301	AGACATAGCA	GCAAAATGTAT	CATCTTACAA	TGAAAAAATA	TTTGTTTTCC
66351	AGCTATAATA	GAAACAGGAA	GCCCAATGAT	CCCATCTCCA	ACTGTGATAT
66401	GATTTCATATT	CACATCTTTC	TCACATAAAT	TGAAAACCAT	TTGTGTCTTT
66451	TGATGCAACT	TACCCAGTTT	TCTTGGCAGA	TTCCCTTCCT	GAACCCCTTA
66501	TTTTGAGGAT	CTAAGGAGAA	CAGGTGTTCA	TGGTTTAGCT	TGGGCTCACA
66551	TTTCTGTGTC	CTACCTCTAT	ACAACCCAAC	ATTAGCAACC	TGTCAAACAC
66601	AATGAGTGTT	TGGCGTACCA	TAGCCGTCAT	GTCTCTTTGG	AATAGTCCAG
66651	TGGAGTATTG	AACCTCAGTG	TTACATAAAT	GCTCCAGGGA	AGCCTATTTT
66701	ACCCATTTTT	AGTGTAAAT	ACAGCTCACT	CACTGGTCAC	GTAACACTCT
66751	AAGACTGACG	AAGGCTTGAA	TCAAAGCAAA	GCCTAAATGT	TACTGAGGCT
66801	AGGAGTATAA	CACCAGCCTT	GGGTTATTTT	TTCCAAGTAG	AACTGAGTGC
66851	TTACACTCAG	CATTTGTCAC	CTTGCACTCA	TAGGTACCCA	CATCAAATAT
66901	CAGATGCCCTG	GTGATACTAG	CAACTAGAAT	TTGGCACAAC	GTCCAGCATT
66951	TGTTTATTCT	TCTATATTAT	ATTACCAGAT	AGATATACAA	AGCTCTGGAG
67001	AAGACCAGTC	CAGCTATCTT	TACTTACCTT	ATCACTGTGG	CTGTCTAGAC
67051	AGTTGAAGAA	AATGTGTAGA	TGCTCTACTC	TCAGGTTTTT	CCTGCTATGA
67101	ACCATTGTAG	GGCATTAGAA	TGCTCTCCCT	CTCTTCTCTT	GGAAGTATAT
67151	CTATGCAAAT	GCTCATGCAT	GCTACAACCT	GACATCCCTC	CTCTGTGCCC

FIGURE 3, page 21 of 27

67201	CATATTTACT	GAACAAATAA	AAGAGCAAAT	AGATAAATGA	ATGAATTATT
67251	AACATGGGTT	TGAGGAAATG	CTTGAGAGAA	TTTGGGGCCA	TGATATGGAA
67301	GTAGGTATTG	TCCCTTTCTC	ATTTAATGCA	AAGAAAATAA	GGTACATATT
67351	GCAGGAGATG	ATTTATATAT	AGCCCTGGGT	TTATTCAACA	TGTGATTTCA
67401	CATAAGGTTT	TGGTCTATCT	TTCATCTCAC	TGGGTTCCCA	ATCAATACAT
67451	GTCACCCCTG	TTTTCCCTTT	CCTCTCACCC	CAAGACACAC	AAAAATTACA
67501	AACTACATAA	CAGCACAACC	AAGATTACTT	TAAGATTATT	CAAATTCAAT
67551	AGGAAAAGAT	TTGAAGAAAA	AAATTAAAGG	GAATTATAAA	GCTAGAAGAA
67601	AAATTACATC	TCCTCTCTGA	CTCAGGTCTA	AAGCCAATGG	AGCTATAAGT
67651	GGGTTTCATTA	CAGAACTTTT	ACCCAGCCCA	GGATACAAGA	AAACTGAGCT
67701	CTGGTACCCT	CTGCTCATTT	ATATAAAACT	TAGACTATGA	GGCATGTTAA
67751	AGAACCACAG	GGTGGTTTGG	AGTGTGTGTT	TCAATGGCTT	GGGTCATGTA
67801	TAAGTTGGTC	TGTGCTATGT	GATAAATCAT	CCCAATACTT	AATGTTTTAA
67851	ACAACAGCAA	GTTGCTTACT	AATTCATGGA	TCAACTGTGC	AGTTTGCTGA
67901	TCTGAGCCAG	ACTTGGCTGA	ATTTGGCTGG	GTTTGCTCAT	ATGTCTGTAG
67951	CCAACTTTTG	GGGATGGGGA	AAGCAGCTAA	GGGCTGTCTG	GTCTATGATG
68001	GCCTCAGCTA	GTCAACTGGG	AAGCCTGAGG	ATTCTCTCCA	TATGGTCTAC
68051	CATCATGCAG	CAGGCCATTG	TGGACTTGTT	CACATTGCAG	CAGCAGGGTT
68101	CCAAGAGAGT	GGAAATGTGC	AAGACTTCTT	AAAAGTTTAG	GCTTGGAACT
68151	GCCACTCTGA	TATGTCTGCC	ACTTCTGTG	GCCCCAAACA	AGTTGTGAGA
68201	AACTCCTTAA	CTGAAGCGGG	GAGGAAAGCA	GATTCAGCAT	AGGTACAAGC
68251	TGCAAAGTCA	CATTACAGAG	GGCATAAATG	AAAGGAGAAA	AGAAGGTTTA
68301	TGGCCACTTT	TACATAAAGA	CTTTATTATT	CTTCTCTTTC	CCCTTCTCCT
68351	TCCAGATTGT	CCCCTTCTCC	TGGCAAGTAA	GAGTCCAGGA	AAAAAGTCAA
68401	TTCAAGTTACA	TGAATGGGAA	CAAAAACACA	ATGGCTTGGT	AGGGTGTTC
68451	TATTTAGTTT	TGTCTGTGG	TAGATTGCAA	AAGTTGTGAT	AACCCCTCTA
68501	CTCCTCCTCC	TGCTTCTTCT	CCTATGGTGG	AAAAAATCAG	CAGCTATGCT
68551	GCTTAGGGCT	CTAATCTATT	CTTGTAGTGA	GAAACTCTCC	TTATCTCATA
68601	AGTATCAAAG	TGTATTTTCA	AAACAGGATC	AGCCTTCCCC	TGTGACTATT
68651	TGGCAATAAT	TCTCATGCTG	TCTATAGCCA	TCTCTCCATG	ATGGTAGTAG
68701	GTGATACGAT	GCAAGCCTAA	AACAGGATTG	CAAATTGCTT	TCTATATGAC
68751	TTTCATTATC	CCAGCAAGAA	ACTGAGGGCT	TTCTCGGGAT	TTTTTTAAGC
68801	ATCGGACCTG	ACCTGTCATT	CTCAACTCAC	ATAAAAATCA	TCCCTATAGT
68851	AAGAAACACT	TTGCTGAGAC	CTGTGGCTTA	TATGCTTTTT	TTCTCCCCAA
68901	GATCAAGTAG	TAAACATCAG	GATGGTCTTG	TGGGACTAAG	GATGAGCCAT
68951	GTTATGAGAT	CTGTCAGCAG	GTTGATGCTC	AGAACCCAAC	AAGTGAATAA
69001	ATAGATTTTG	CTTTTATTAA	AGCATCATCT	TTCAAATCAT	CAAACGTTTC
69051	AAGGTGTGGC	TAGTTTCTGA	GCTTCCCTTG	CAGAAAGGAA	ATTAAAAGCC
69101	ACCTGAGGTT	GTTTGCAAAA	AAAAAAAAAA	AAAAAAAAAA	TGCACCATAC
69151	CCCATCCTAT	CATCCCTTCA	AATGACACCC	AATTCCAGTT	TCAGAGCAGC
69201	ATGGGACTTG	AACTTTTGTA	TGTTTATGAC	TCTTTATTGC	CCCATGACAC
69251	CCTAGCAGGT	AGTCTGTCCA	TGGCTTTGTT	ACTTCATCTC	TAAATGCACA
69301	CCCAGCTCCA	TATTATTGCA	CAGGAAATGG	CTAACAGATG	AAGACAGCAC
69351	CTTGAGAGCT	GCAGAATGGA	AAGTAAATCT	AAAATTTCTC	TGTTTCCTAG
69401	GTTCTAATGT	GGACCCGTC	AGCTTACCGT	ATGGAATACT	TCCAATCTGA
69451	GTCATGACAA	CCGACGGAAA	TACATCTTTA	GTGATGAGGA	AGGACAAAAC
69501	CAGCTGGGCA	TCCGGATCCA	CCAGGACATC	CCCCTCCCTC	CAAGGAGAAG
69551	AGAGCTCCCT	GCCTTGCGGA	CCACCAATGG	GAAAGCAGAC	TCCCTAAATG
69601	TATCTCGGAA	CTCAGTGATG	CAGGAACCTC	CAGAGCTCGA	GAAGCAGATT
69651	CAGGTGATCC	GTGAGGAGCT	GCAGCTGGCT	GTGAGCAGGA	AAACGGAGCT
69701	GGAGGAGTAT	CAAAGGACAA	GTGCGACTTG	TGAGTCCTAG	GTGACCACAC
69751	TGCTTCCCTT	TCTCAGTTCC	TGACCTTCC	CTGAGCCCTT	GAGACACTTT
69801	GTAATGCTCT	TTTGTAACCT	TCGACAAAGG	TGTGGGGAAG	CTGAGGTCTA
69851	GGTCTTCTTA	AAGGTCAAGT	CTGCTCTCCC	TCGCCTAAAG	TGCAGCAGCA
69901	GCTCCTCTCA	AGCTCACTCT	CTAGGTCTCC	AGGGTAGGAG	TGTTTTCTTA
69951	GCAAGAATCT	TAGTCAGGAG	TAAGCTCTGT	GCGAGAGATC	TGTGAATAAC
70001	CAGATAACCC	CAGCTGCCGT	TAACCTTTTC	ACCAGGTGCC	ACAGTAATAT
70051	TTCTGGTTT	TAGCCCTTTC	TCTGCACTAC	CAACAAGAGA	TAAAATTGTT
70101	ACTCACACTT	ATGTCTTACT	GGGTTGCTGG	TTTTCATCGT	AACACAGAAC
70151	GAGGTTATCT	AGGGTTGTAG	CTTTTGATAC	AACTCCCCGA	TCTAGATTTA
70201	TTCTTACATT	CTGAATGGGG	AGCAGGTAAG	AGCAGAGCAC	CTCCCACTGG
70251	GGGTGGGGTA	TTTAAAAATT	AACTCATTAG	TATCATAAAC	GTCAAGGATT
70301	GATTGGACCA	GGCAAGAGCC	ATGTTTTTGA	GAAGGTTCTG	GATCTCTGAC
70351	TCCATCCTGA	CTGTTTAGTA	AGAGCATGCT	TACACCCTAC	TGTGAAAAGG

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70401	GGAGGGGATG	TGGTAAGCAG	AAACAGAAGA	CAGGCAGCAG	AGGCATTAAA
70451	AATGCATACC	ATGCTTTCAG	AACAAAAGCT	CTGGGCCAGA	AAGGCAATTT
70501	GGCTAAAAAA	TGAATAAGAC	TACTTCTAAT	GTAACATAAGC	ATCTCCACTA
70551	TGGTGTGTGC	CTTTTATAAA	GGAAAAGAGA	GAAAAAGGCA	AAGCAAGGTT
70601	GTGGCCTTAG	GTTGGACCTG	GAATATCCCT	TATTGCCTAT	AATGGAATAT
70651	GTGACACTGT	GGGTGAAATG	TTCTACACAC	CACACACTAG	GCCATTTTCA
70701	GATCAGCAGT	CACCCATCGC	TTAGCATAGA	AATCCCAAAA	CCTCCAGCCC
70751	GGGAACACTA	TAAGCTTCGA	CCATTACAGG	ATCTGCCCTG	CACTTTGCAT
70801	ATCTGTATAG	AAAATCAAGT	CAATCCCCCA	TCCTCACACC	CACTCATCTC
70851	TGAGGAGCTA	TGAACCTGGT	TTGGTCCCTC	TAATGATCCT	CCAGCCTCAT
70901	CTAATGCCCC	CCAAAGACTG	ATACAAGTAA	CCTCCCCTCT	GCTTAGGTGT
70951	CACTTTCTCA	GCTATCAAG	TTTAGGCAGC	AAGGGAAAGG	AATATGGGTC
71001	AGTTCTCAAA	TGTCAATGTA	GATAAGAGTC	ATCTAGTAGA	GAATCATCA
71051	GAGTGCGGAT	TGCCAAGACC	CTTCTCCAGA	GATTATGGGG	TTGGGGGTGG
71101	AGGTCTAGAG	GTGAGCTCAG	AAACCTACTG	TTAACCAACA	CCCCCAAGTG
71151	ACTGACACAG	GTGGTCTAAA	AATTACTTTT	CTAGAAACAC	CATTCTGGAA
71201	GTTTGGCTGC	CCACAGGCAG	GAGGAGAAGC	ATGAAGAGAA	AACCTGTTTG
71251	AGAAGTTTTG	TTTTGTTTTG	TTTTGCTTTT	TAATAATTTT	AGCACACATC
71301	TGCTGACTCT	CCTTCAACAT	CCTCACCCCC	ACCCCTGGGC	ACCATTTAGG
71351	ACAAGACTTC	CTTATTTATC	AATTACTTGA	TTTATCTTCT	CAGGACTCAT
71401	TGTTCCACCC	CCAACCAATT	TGAATGCCTA	CAATAAGTTC	AGGAGCTGTG
71451	CCAAGCACTT	TCCTCTTTTA	CAGCTGGAGA	TCCTGGAAA	GGTGTCTCAG
71501	TCACAAAAC	TCTCCCTCTA	CTACTGGATG	AAATGTCTGC	ATTTCCACCA
71551	AAATCTACCC	AGTCACCCAG	GGAATAACAA	CTTAAGCTGT	AGTTAGATAA
71601	CACCTAGTGA	TTAATTGGCT	GAGAAAACCC	TGGAGTGGAG	GGAGGCTCAG
71651	AGATACTGAT	ATGGATGTGG	GAGGGCTCTA	AAGTTAGAGG	TCACCAACTC
71701	CACAGATGAA	ACAGTTCAAT	AATGAGGAAA	CAGGTGAGCC	CTGAAAACAC
71751	AAAAGGACAG	TTCTGTGTTG	AAACACCCCA	TCCCCTCACG	TTCTCACCCC
71801	AGGCCCAGAA	GTAGGTTGCA	ACTGCCTTTG	GAAGATTTTG	CCCCTTAGCC
71851	ATCCCCACCC	ACTTGTAACA	GCTAAGAATG	CTGGGAGACTC	TGCCACCATG
71901	CTCTGCGTGA	CCCTGAACCT	CTGTGCAGCC	CGGAAGGCTG	ATGTACAGGT
71951	GTACCTCAAT	CCACATTACA	GCCATGCTCC	TAATGTACAT	GGACATTTTT
72001	GTAACCTCAG	TCATATTCTG	ACTGTATTTG	AGAAGCTGGC	TGTTTAAGGG
72051	AACCCAGAAG	TGAATTCCTT	TGTAAAGTAA	AGCACCCCTT	TGTAATGCAA
72101	TTAATTATCC	CTTAATGTAT	CTGTTTGTGA	AGTCTGCATT	TTTGTATATC
72151	GGATTTACCT	TAAGCTTCTC	TAGTGAGGCA	TTCTGAGCAG	TGGTGATCAC
72201	ATGCCAGATC	GCCCTGCCTA	TCCACAAAGT	AGATGACCAA	TGCACGCTCC
72251	TCAAACATCT	TTGGAGGAAC	TACCTGGCCA	AAACACTGGC	CAGGATGCAG
72301	CAAGCAGCAG	CAGGGGCTGA	CAGCAGGCTT	ACTGCCATCA	ACATTGCTTG
72351	AAATGCCTCT	ATGTTCTGAA	TAAAGAAAAA	CCATAATTGC	TTGTGGTGAA
72401	ACGAAGCAGT	CTTCATGTTA	AGTAGCAATG	GTTATTTTTA	TTGGTAGTAA
72451	CTGAACAGTG	TTTTGCAATT	TGTGAAACAG	TGTATTGTGT	TTTGTAAAAT
72501	GATGTCATGA	AATGGTGGGT	CCTTGGAAC	CTCCTTTCCG	TTCAGCTCTG
72551	CCTCTGTTCT	TTCAACTCCT	TTGAGGCTCA	AAAAAAACAC	AAAGATCAGA
72601	AGCCTTCAGA	TAGAGGGTGA	TATTCTGGTA	AAGAAGAAAG	AGATAAGGGA
72651	CGCTACCTTG	CTTTCTGGC	ACAGGAAGCA	CATGATAAAG	CATGCTCAGA
72701	TGAGCTGGAA	CAGATATAGC	TACCTGGTTC	GTGTAAATAA	GAATAATCAA
72751	GGCCCAGAG	TGTGTATGCT	TCCAGGTGGA	GGAGAAAGGG	GAATCTCCCA
72801	AAATTTAAAA	ACAAATTGGA	AGAAATAACCA	GGACAGCCAA	GTGAAGCAGC
72851	CACAGGGACC	CAAGCAGTCG	AGGTCTTTAA	TGTGCCTGGA	GATGACTCTC
72901	TGCTATTCAT	GAATCTTGCT	ATTGCACAAA	CCCTATCAAG	AGCTGCTGCT
72951	TCCCTTCCAG	CCAGAAAAGT	GGTAAGCGGA	GCAAGTGCCA	AGCAGAACAG
73001	ACCTTATCAT	CTGGGTAACA	GACTTCTCAG	TGTTGGTGCT	GTGTCTGTTA
73051	GAGCCTTAGA	GCAAGTTAAG	CACTTCCTTG	GTGTGGGTAA	AGAATAAAGG
73101	GGAAAGAAAC	TACTTTAGAG	CCTCTTTTTC	TCCCAACTCA	TATTTTGTAT
73151	AGGAAAAACA	GAAAACCCAT	CCAGTTCCTC	AGAAATTGCT	TTCTAGGCAT
73201	TAATACTACT	TTACTATCTA	TACTGTTTAG	TTATTCCTTT	CTTACCCAC
73251	CTAAACTATC	CATCTAATCC	AGGATTCCTT	CACTCTTTT	TTTAGTTAC
73301	TAATCATTTT	ATGAAAATAA	TGTATTTATA	AGTATTTTCT	TAAGGTTTGT
73351	GAAGAGTATT	TGCATTGTGT	CTTCATTTTA	ATGTGTTTGC	AATCGCTCCG
73401	CTCCAGGAAG	AACGGAATG	CTGTCTGTG	AGCATGAAGT	GAACGGGCTG
73451	TTTTGTCTCA	GCCACTTTTC	TTGTACAACC	ACATGGATGG	ATTAGATGTC
73501	CTCAGGTCTT	TTCCATCTTC	AGTTTCTATG	ACTGTGGAAT	AAATGTTTCA
73551	ATAGAAACTT	CACTTTGGGA	TGTAAGTCTG	GCTTTGTCTT	TGGGGATTCA

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73601 AATGTTGACA TGATACCACT TCCTTCTTAA TAGGAGACCC ATTAATGCTA
73651 TGATTTATGC TTATTTCCTT GCTATAGTCC AAAGAAGAAA CACAAGATAT
73701 GCTGAGAAAT CTCAGAGCTC AGGCATCATG AAGTAGAACT GAAATGGCTT
73751 CATCTGAGAT AGACATTCCA GGAAAAAGCA CAAGTTCAGA GGTCTCTAAA
73801 ATCCTGTACT GATCACCTC ATCAGTAATT CGACAAACAT TTGCTAAACA
73851 GCTTCCATGT ACGTGCCAAG TGCTGGAGAC ACAATAGTGA AGAAGATAGG
73901 TATGGTCCCT AACTTATGAC CTTTTTCTT TTTTTTTTTT TTTTTTTGAG
73951 ACGGAGTCTT GCTCTGTCAC CAGGATGGAG TGCAGTGGCA TGATCTCGGC
74001 TCACTGCAAC CTCTGCCTCC CAGGTCAAG TGATTCTCCT GCCTCAGCCT
74051 CCCGCCCGAG TAACTGGGAC TACAGGCGCC TGCCACCATG TCTGGCTAAT
74101 TTTTGTGATT TTAGTAGAGA TGGAGTTTCA ACATGTTGGC CAGGATGGTA
74151 TCGATCTCCT TACCTCGTGA TCCACCCACC TCGGCCTCCC AAAGTGTGGG
74201 GATTACAGGC ATGAGCCACC ACGCCACCC TCAATCTGAC CTTTTTACAA
74251 CCTATAAACA GGTAATACTG TAACAACATA CATATATTGG GTACTTATTA
74301 TAAACCATGA TCTCATTTAA TCTTAACAAC CCCACAAGAT AGGCACTATA
74351 GATGTAGTCT TAAGTAGGTA AATGAGACCT CCCAGTTTAC AGATAAAAAA
74401 ACAAGAGTCA GAGAACTAT GTAACCTGCC CAAGGTTGCA GAACTAGTAA
74451 TAGTAACAGA GATTGTACA ACCATACAGG ATTCCGGTCA CTGCCTCACA
74501 ATTTTCTATT CTTCTTGAA TCCCCTTTTA GTCTTCTGC CTTACTGCTT
74551 CTTTCCCATG CCTCGGCTG GCCCCTAGCT CCACAG (SEQ ID NO:3)

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#### FEATURES:

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Start:      1651
Exon:       1651  2349
Intron:     2350  29157
Exon:       29158  29762
Intron:     29763  44435
Exon:       44436  45483
Intron:     45484  52584
Exon:       52585  52730
Intron:     52731  57554
Exon:       57555  57670
Intron:     57671  59239
Exon:       59240  59391
Intron:     59392  63553
Exon:       63554  63718
Intron:     63719  65069
Exon:       65070  65149
Intron:     65150  69400
Exon:       69401  69740
Stop:       69738

```

#### MAP POSITION FOR ALLELIC VARIANTS:

##### STS that hits the 3' end of the cDNA:

WI-14669

dbSTS id: 37082, GenBank Accession: G23244

Organism: Homo sapiens Primer1: TCATAGAACTGAAGATGGAAAAGA (SEQ ID NO:5)

Primer2: GGAAGAACGGAATGCTGTCSTS (SEQ ID NO:6) location: 7633..7759 Chromosome: 9

GB4 Map: Chr.9

Reference interval: D9S176-D9S279 (104.9-120.4 cM)

Physical position: 326.27 cR3000 (P2.11)

RH details: RHdb RH62705

Typed by: Whitehead (see WI-14669)

#### RH mapping panel:

11000282865712	#	SHGCNAME	CHROM#	LOD_SCORE	DIST. (cRs)
	1	SHGC-9736	9	8.23	29
	2	SHGC-57676	9	6.4	40



**blast match to HTG:**

Coverage by HTG sequence AL137023.1:

Regions Covered:

1922 - 2971  
2970 - 3118  
3123 - 3234  
3232 - 3385  
3384 - 3550  
3548 - 3629  
3626 - 5481  
5509 - 7789

HTG sequence, submitted 20-Jan-2000

emb|AL137023.1|AL137023 Homo sapiens chromosome 9 clone RP11-403A22 map q34.13-34.3, \*\*\*

SEQUENCING IN PROGRESS \*\*\*, 19 unordered pieces

Length = 184814

Score = 4389 bits (2214), Expect = 0.0

Identities = 2261/2281 (99%), Gaps = 1/2281 (0%)

**Allelic Variants (SNPs):**

3,248	g	a	atttgtgaacttaacggtgacaagtaataatgaggagatgaatctttaag [g/a] acaagac agagtccttatttagtaatgagttttctgccttttatatgtta (SEQ ID NO:7)
9,928	g	a	cttatgaaacaggagtgagcttatttgggtggtgtagggctgagtagctg [g/a] aagagtt ccaaatctgaatcctcaaaacttggtgaatatgttattttttat (SEQ ID NO:8)
11,387	t	c	agtacaacctgcatgcaatctatgggtggttttggacagaaggcctcaac [t/c] agaagcc aaacagaagtgtgtgtaataactccccagattaaaaagaaaagt (SEQ ID NO:9)
11,578	c	t	aaccagacattcttaaacagagattcctttaacaaataatttgcttcta [c/t] atattgt aaatgtaataatgggagcaaatatatacacagatccacacaca (SEQ ID NO:10)
11,731	a	g	cacattgtgttatatacacataaagaaatgcttcaatgtgacctgaacatga [a/g] tgataaa tctagatccgaatttatctagtgtgccttcacctggccacaga (SEQ ID NO:11)
14,101	t	c	aggaattttctaacttgaaattgtggttatatctccaattctcaccttaag [t/c] taaaaat acttaagatgtcttgaaaaagtgtttttctcttacctataac (SEQ ID NO:12)
14,437	c	t	cttatcaaatataatgccctgagcttcatgccattcccttgctcaaaaac [c/t] attttac tataataataattccctttctttttccatgacccaacacttctg (SEQ ID NO:13)
16,732	T(17)	T(16)	ccattgaaacactgaaattttaaattggcctcctaaccatcctttaccacc [t/-] ttttttttttttttttaagatggagtcctcacactgttgccctgggctggag (SEQ ID NO:14)
18,612	a	c	ctcctgtcaaaacaaagtatcgggaaatcagacaagagttcagatcttggt [a/c] agattag ccaagtctattcctaacttcctgttttactcactgctcatccg (SEQ ID NO:15)
18,968	a	g	acctggggaaaaaaaatcacatttggtagtttttaaagtatagaatttta [a/g] cctcact gaattccactatatttatatgctatgacctcatatatctgtttt (SEQ ID NO:16)
20,360	a	g	cttccaatttttgtttttctgggaggttattgttttctgttttatttgcc [a/g] ttgtaac tcaaggtctattacactgttttgctcatagtaatacactcaga (SEQ ID NO:17)
23,731	t	a	ctactcactgccttgctctacctcatttgttcttccacttagttctgtaac [t/a] ttgaagc agctctgaagtacagtgaaccccatgacctggtttgaagctag (SEQ ID NO:18)
26,282	a	t	ttaagccatcatgttgatagatcataaaatgacatctatcattctctgag [a/t] ctttcat aactgaaaaaggaataaatgcagtgtagagtcaggctagagt (SEQ ID NO:19)
29,047	t	g	tagacaggaagcatagttttccaaactatgggaattttatcccagaacta [t/g] gtatcac agtgaaattaaaggattaagcctcataagaaagcaaaagtacc (SEQ ID NO:20)
29,346	c	t	ctcctccttaccagaataattccaagttccaccttggttctatcatcaa [c/t] atcaccg ctaacctcccctccaccaggacctcttgagcttctacagat (SEQ ID NO:21)
29,542	a	g	ttggggtcatgccccctgaacttcggttggtgctgggagattcccagaat [a/g] tggagga actgaggacagagggctgtcccttaggactcattgctcatgga (SEQ ID NO:22)
29,577	a	g	ggagattcccagaatatggaggaaactgaggacagagggctgtcccttagg [a/g] ctcatgt ctcatggaaaaacaacacagtctgtctttgagcactacgtaca (SEQ ID NO:23)

29,779	c	t	ctacaaatctcacttcaggacaatatttatcaaggtaggatgcaaggtct [c/t] gggtata tccccattcatagggccatgacagagagtaaaattcccctatc (SEQ ID NO:24)
32,135	c	t	aaaaaaaaattagctaagcatgctggcaccgactgtagtcccagctacg [c/t] gggaggc tgatgcaggagaatcgcttgaaacctgggaggcagagggtgcag (SEQ ID NO:25)
33,150	g	t	gctgacagaactgttaacatcttaaaatgttaatgaaatcaccaaaaaaca [g/t] ggcattt tcagctaggctttcagattagaaaagtcatttctcatggcaga (SEQ ID NO:26)
35,710	g	a	taagcattcttgtcctaaggacctctaccaacacaaaactggtaacccac [g/a] tatttca acatgtacttaaaagaaatgcagttgcattaaacatggaagcc (SEQ ID NO:27)
37,765	a	g	ctcaagaaatcacgcacatttaattgtttaatttggaactgtcccatat [a/g] tggagaa gaaaatcaaacagaatttgaccacaggtaagctctgtggctaa (SEQ ID NO:28)
38,468	g	a	ctggagggtctatggacattgtgaaatatcaaaattggctgtaagagtctt [g/a] aaagaca atccaaagagagaatagcttagggctcttgaatgaaaaagagc (SEQ ID NO:29)
38,915	g	a	tcagtaaacctaacaagaattaggtgatcctggtaggaaggaggtttgag [g/a] gaatgtt actagtaataatattcttaaaagattcctaatacaggcaaaagca (SEQ ID NO:30)
39,464	g	c	gtgataatatgtagacagaaatgaaggctgaaaacaatggagttatttca [g/c] agctatt tccacagccagaaaaaatacaaattcataataaacataaaaaac (SEQ ID NO:31)
41,195	g	a	ccaccttaagccctttatgagactagcagagagagagtaaaagaggaagc [g/a] aaagaaa gaaggaagaagcattgttcctcacatgtggacttatgttcagt (SEQ ID NO:32)
44,478	t	c	tttcccagggtttctagccaataaccactttcagaggcctcagtggttccat [t/c] agagtaa aaggttcaccatcgctcagctcagaaaacaactttttcatctg (SEQ ID NO:33)
51,524	a	g	tatggcagtggttgcaggtatttatctttgtcacccctagtaactttgaga [a/g] ctctaca gagtaggccttcaataagtgtgaataaatgaacgattttgct (SEQ ID NO:34)
54,016	t	g	tgagctactgctgcagtcacccagcagttccactccactcagggcattcac [t/g] tatctca ggagctttacctgagaaggccacgtgccagcactggccctg (SEQ ID NO:35)
54,405	a	c	cttcatttttaacaagctccccaggcaattcactgattgaggtgaaattgg [a/c] atctagg cagagcttatcattaatgccctctcaccacttctctctgggcc (SEQ ID NO:36)
55,007	c	t	cgctttttcacgtaactgaaatttatcatagctatctgcactttgcagtc [c/t] aaaatca agagtagttattttaaggaaggatcccagagacattaggcttca (SEQ ID NO:37)
55,156	t	g	tcatattgctaccacaaatatttgtggaatatttggaagtataacttgt [t/g] gctacgt agctgtcaagggtacattatggtactgtggcagtcgaactttga (SEQ ID NO:38)
64,177	t	c	ttttccctggtccagaggggttttgagaccattggggccaaggccaagct [t/c] cacaagg ccgcagttctctcctgttacctagacatcaacgcactgattta (SEQ ID NO:39)
66,196	c	g	actctcccctcccctctcagctctgtggtattcctgcatcatattgcaagt [c/g] tgttagt gacaagctgtatactagtccagtcacagctgttccatgacatg (SEQ ID NO:40)
66,780	a	g	tcaactggtcacgtaacactctaagactgacgaaggcttgaatcaaagcaa [a/g] gcctaaa tgttactgaggctaggagtataacaccagccttgggttatttt (SEQ ID NO:41)
69,176	t	c	aaaaaaaaaaaaaaaaatgcaccataccccatcctatcatcccttcaaatga [t/c] acccaat tccagtttcagagcagcatgggacttgaacttttgatgttca (SEQ ID NO:42)
70,027	a	g	catccccctccctccaaggagaagagagctccctgccttgcggaccacca [a/g] tgggaaa gcagactccctaaatgtatctcggaactcagtgatgcaggaaac (SEQ ID NO:43)
70,419	a	g	taagagcatgcttacaccctactgtgaaaaggaggagggtgtggtgaagc [a/g] gaaacag aagacaggcagcagaggcattaaaaatgcataccatgctttca (SEQ ID NO:44)
71,332	c	t	aataatttttagcacacatctgctgactctccttcaacatcctcaccccca [c/t] ccttggg caccatttaggacaagacttccttatttatcaattacttgatt (SEQ ID NO:45)
72,153	a	g	aattatcccttaattgtatctgttttgtaagtctgcattttttgtatatcg [a/g] tttacct taagcttctctagttaggcattctgagcagtggtgatcacatg (SEQ ID NO:46)
72,711	t	g	cgctaccttgcttttctggcacaggaagcacatgataaagcatgctcaga [t/g] gagctgg aacagatatagctacctgggtcggtgaaataagaataatcaag (SEQ ID NO:47)
74,434	g	c	agtttacagataaaaaacaagagtcagagaaactatgtaacttgcctcaa [g/c] gttgcag aactagtaataagtaacagagatttgtacaaccatacaggattc (SEQ ID NO:48)

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POSITION	Allele 1	Allele 2	Protein Position
3,248	g	a	Intron
9,928	g	a	Intron
11,387	t	c	Intron
11,578	c	t	Intron
11,731	a	g	Intron
14,101	t	c	Intron
14,437	c	t	Intron
16,732	T(17)	T(16)	Intron
18,612	a	c	Intron
18,968	a	g	Intron
20,360	a	g	Intron
23,731	t	a	Intron
26,282	a	t	Intron
29,047	t	g	Intron
29,346	c	t	Exon
29,542	a	g	Exon
29,577	a	g	Exon
29,779	c	t	Intron
32,135	c	t	Intron
33,150	g	t	Intron
35,710	g	a	Intron
37,765	a	g	Intron
38,468	g	a	Intron
38,915	g	a	Intron
39,464	g	c	Intron
41,195	g	a	Intron
44,478	t	c	Exon
51,524	a	g	Intron
54,016	t	g	Intron
54,405	a	c	Intron
55,007	c	t	Intron
55,156	t	g	Intron
64,177	t	c	Intron
66,196	c	g	Intron
66,780	a	g	Intron
69,176	t	c	Intron
70,027	a	g	Exon
70,419	a	g	Intron
71,332	c	t	Intron
72,153	a	g	Intron
72,711	t	g	Intron
74,434	g	c	Intron

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